

THIRTY-EIGHTH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

1905

M A R I N E

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OTTAWA

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EXCELLENT MAJESTY

1906

[No. 21—1906].

*To His Excellency the Right Honourable SIR ALBERT HENRY GEORGE, EARL GREY,
VISCOUNT HOWICK; BARON GREY OF HOWICK; A BARONET, G.C.M.G., &c., &c.,
&c., &c., Governor General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Thirty-Eighth Annual Report of the Department of Marine and Fisheries, Marine Branch.

I have the honour to be,

Your Excellency's most obedient servant,

LOUIS-PHILIPPE BRODEUR.

Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, March, 1906.

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REPORT

OF THE

DEPUTY MINISTER OF MARINE AND FISHERIES.

To the Honourable LOUIS PHILIPPE BRODEUR,
Minister of Marine and Fisheries,

SIR,—I have the honour to report on the transactions of the Marine Branch of this department for the fiscal year ended June 30 last, and to give an account of a portion of the work since that date.

Owing to the demand for increased aids to navigation and the improvements introduced, the work of the department has vastly increased. For the purpose of more effectively carrying out the outside operations undertaken, the different branches were rearranged. The maintenance of the ship channel in the St. Lawrence river and the government shipyard at Sorel in connection therewith, transferred July 1, 1904, has very materially increased the importance of the Marine and Fisheries Department.

The department has for many years embraced a variety of sections of the public service, some of a minor character but others of a very comprehensive nature, on the rivers, gulfs, great lakes, the Atlantic and Pacific coasts, and more recently the Labrador coast, Hudson bay and strait, and other Arctic waters, as well as the meteorological service from the Atlantic to the Pacific. The increased work required a large amount of administrative and executive attention and consequently an increased staff of officers, more plant and steamers and a much larger expenditure of money.

THE GENERAL SUBDIVISIONS OF THE MARINE BRANCH ARE AS FOLLOWS:

The construction of lighthouses and fog alarms.

The maintenance of lights, gas buoys and other buoys.

The lighthouse board which decides the necessity for aids to navigation.

The hydrographic surveys.

The tidal surveys.

The ship channel St. Lawrence river and Sorel works.

Meteorological and magnetic service.

Investigation into wrecks.

Board of steamboat inspection.

Cattle shipments inspection.
 Wireless telegraph service.
 Signal service.
 Life saving service.
 Marine hospitals.
 Submarine signalling.
 Shipping under the Merchants' Shipping Act.
 Legislation and administration of laws relating to the Department of Marine and Fisheries.
 Humane service in connection with seamen.
 Wrecking plant subsidized.
 Winter communication.
 Removal of obstructions to navigation.
 Examination of masters and mates and issuing certificates.
 Naval militia.
 Pilotage.
 Government of ports and proclaiming of harbours in the Dominion.
 Control of government wharfs.
 Dominion Steamers, Marine and Fisheries.

EXPENDITURE.

The expenditure for the fiscal year ending June 30 last was as follows :—

LIGHTHOUSE AND COAST SERVICE.

Maintenance of lights..	\$1,061,285 46
Construction of lights..	1,541,141 67
	<hr/>
	\$2,602,427 13
Appropriation for maintenance and construction....	\$2,609,000 00
Deduct expenditure..	2,602,427 13
	<hr/>
Expenditure less than appropriation.. . . .	\$6,572 87

OCEAN AND RIVER SERVICE.

Appropriation..	\$993,691 66
Expenditure..	973,167 98
	<hr/>
Expenditure less than appropriation.. . . .	\$20,523 68

HYDROGRAPHIC SURVEYS—SCIENTIFIC INSTITUTIONS AND ST. LAWRENCE SHIP CHANNEL.

Appropriation..	\$868,153 00
Expenditure..	728,663 96
	<hr/>
Expenditure less than appropriation.. . . .	\$139,489 04

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MARINE HOSPITALS—STEAMBOAT INSPECTION—HUDSON'S BAY, &C.

Appropriation.	\$482,884 44
Expenditure.	443,463 74
<hr/>	
Expenditure less than appropriation.	\$39,420 70
Total appropriation, Marine Branch.	\$4,953,729 10
Total expenditure, Marine Branch.	4,747,722 81
<hr/>	
Expenditure less than appropriation.	\$206,006 29
Total expenditure, Marine Branch.	\$4,747,722 81
Total expenditure, Fisheries Branch.	979,588 70
<hr/>	
Total expenditure of department.	\$5,727,311 51

NOTE.—The fisheries expenditure is merely added to show the total expenditure of the department and has no connection with this report.

LIGHTHOUSE SERVICE.

The lighthouse service of the Dominion is divided as follows :—The Ontario division, embracing all lights from Montreal westward to the North-west Territories; the Quebec division, extending below Montreal and including the river and gulf of St. Lawrence and strait of Belle Isle; the Nova Scotia division, including St. Paul's island, Cape Breton, Sable island and Cape Race, Newfoundland; the New Brunswick division, the Prince Edward Island division and the British Columbia division, each including lights within the provincial boundaries.

The several districts, with the exception of the district above Montreal, are in charge of agents who receive instructions from the department and report annually, in addition to communicating with the department, in connection with all matters relating to their agencies.

The total number of light stations, lightships and fog-alarm stations in the Dominion is 822, and lights shown 1,038, the number of steam whistles, fog-horns, bells and guns 102, the number of lightkeepers and engineers of fog-alarms with masters of lightships is 837.

The report of the chief engineer relating to lighthouse construction, repairs, hydrographic surveys, &c., contains detailed information. The principal repairs, changes and improvements at existing stations are referred to in his report, also new aids to navigation. The work done at fog-alarm stations in connection with steam whistles, compressed air horns and explosives, is dealt with under the proper headings. Information is also given respecting the extent of repairs and some account of the repairs in detail under the head of the station.

During the past year 44 lightstations were constructed in all and 13 fog-alarm buildings. Of the lighthouses 22 are new stations and 22 buildings were erected at existing stations. The new fog-alarm buildings were erected at existing stations.

RIVER ST. LAWRENCE SHIP CHANNEL.

As stated in last year's report the entire management and control of the River St. Lawrence ship channel with dredging and sweeping plant, steamers and other appliances, together with the Sorel shipyard were transferred to the Department of Marine and Fisheries.

The first annual report of the work done under control of this department has been submitted by Mr. F. W. Cowie, Superintending Engineer, and Mr. G. J. Desbarrats, Director of Shipyard, and appears as Appendix number 3 of this report.

Mr. Cowie's report contains valuable information respecting the channel and progress of the work up to date. The ship channel formerly extended from Montreal to Quebec but the limits have been extended to the Traverse, making a total distance of 225 miles. The depth of water is still governed by the few uncompleted portions of the 30 foot channel between Montreal and Batiscan, but from Batiscan to Quebec and lower down the river the tide affects the depth of water.

The depth of water in the 30 foot channel was not less than 31 feet; the depth in the 27½ foot channel was never less than 27.1 during the year.

As the dredging in different localities is completed, powerful range lights and gas buoys are established, thus making the channel safe for night running which will be an advantage particularly for upward bound vessels.

The dredged shallow channels were swept but no serious obstructions were found. It is pointed out in the Superintendent's report that when dredging is completed it does not require a repetition, thus showing that the work that has been done will be of a permanent nature.

The part of the report relating to the Sorel shipyard describes the work of constructing dredges, tugs, scows, &c., for the Public Works Department as well as for the ship channel use and shows the repairs made to floating plant of the two departments.

ILLUMINANTS AND ILLUMINATING APPARATUS

To a large extent kerosene oil is still used in lighthouses, but acetylene gas has been introduced in a number of instances, and in some of the important lighthouses petroleum vapour under mantle has been used with the effect of increasing the power of the light 500 per cent over the light from the ordinary burner, in proportion to the oil consumed.

Changes have also been made in the optical apparatus of many lighthouses and gas buoys. In all of these changes more powerful lights have been installed by substituting a higher order of light, which consisted of placing lens lights at stations where ordinary parabolic reflectors were used. Improvements in the character of the lights in other respects, were made, by changing fixed and flash lights to occulting and by introducing other 'distinctive' features.

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The report of the Commissioner of Lights (Appendix No. 2) contains full information respecting the improvements made in the gas buoys and optical apparatus in lighthouses.

SUB-MARINE WARNING.

Sub-marine bells were installed during the season of 1905. One on the lightship at Red island, St. Lawrence river, which strikes the lightship's number '3' every fourteen seconds; one on the lightship on Prince shoal at the mouth of the Saguenay river, which strikes the lightship's number '7' every twenty-two seconds; one on the White island reef lightship, River St. Lawrence, which strikes the lightship's number '5' every eighteen seconds, and a sub-marine bell was attached to the combined gas and bell buoy in the approach to Halifax harbour.

Sub-marine warning apparatus has been installed on the important lightship situated off Heath point, Anticosti island, in the Gulf of St. Lawrence and on the Lurcher lightship in the Bay of Fundy.

WRECKING PLANT.

By order of the Governor General in Council of March 30, 1905, all contracts and matters relating to subsidies for wrecking plant were transferred from the Department of Trade and Commerce to the Department of Marine and Fisheries.

The contract with Messrs. George T. Davie & Son, of Quebec, and all correspondence relating to wrecking plant subsidies were transferred to this department.

Tenders were invited for a wrecking plant by public advertisement in British Columbia and the maritime provinces. The tender of the British Columbia Salvage Company was accepted and approved by the Governor General in Council, and a contract for ten years is in abeyance. The tenders for the maritime province wrecking plant are now under consideration. The subsidy allowed each contractor is \$10,000 per annum for which steamers with steam up, scows, divers and divers' outfits, centrifugal pumps and all necessary tackle and wrecking apparatus, must be kept in constant readiness for immediate use.

SICK AND DISTRESSED MARINERS.

MARINE HOSPITALS.

Under the provisions of chapter 76, Revised Statutes, dues of two cents per ton register is levied on every vessel arriving in any port of the province of Quebec, Nova Scotia, New Brunswick, Prince Edward Island and British Columbia, the money thus collected forming the Sick Mariners' Fund. Vessels of the burden of 100 tons and less pay the duty once in each calendar year, and vessels of more than 100 tons, three times in each year.

By an amendment of this Act, passed at the session of parliament in 1887, 50-51 Victoria, Chapter 40, it is provided that no vessel, not registered in Canada and which is employed exclusively in fishing or on a fishing voyage, shall be subject to the payment of this duty.

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The receipts for the fiscal year ended June 30 last amounted to \$58,372.34, being a decrease of \$3,405.95 as compared with the preceding year. The increase and decrease in receipts for sick mariners' dues in the various provinces were as follows: Nova Scotia, decrease, \$1,576.37; New Brunswick, increase, \$994.44; Quebec, decrease, \$1,824.98; Prince Edward Island, decrease, \$131.44; British Columbia, decrease, \$1,170.72.

The Sick Mariners' Act does not apply to the province of Ontario, and consequently no dues are collected from vessels in that province, although a small expenditure is incurred on account of sick seamen. An appropriation is made by parliament to cover the expenditure at Kingston and St. Catharines, where general hospitals have been established and sick seamen were paid for at a per diem rate of 90 cents.

In the province of Quebec the expenditure on account of sick seamen amounted to \$9,793.28, being \$1,109.58 more than the previous year. The total collections for the entire province amounted to \$17,309.58, being \$1,824.98 less than in the previous year.

At the port of Quebec, sick seamen are cared for at the Jeffrey Hale and the Hotel Dieu hospitals, the sum of 90 cents per diem for each seaman is allowed for medical attendance and board.

The expenditure on account of sick seamen in the province of New Brunswick for the fiscal year, amounted to \$4,286.24, being \$402.11 less than the preceding year, and the collection of dues to \$12,932.82, or \$994.44 more than the previous year. Marine hospitals have been maintained at Miramichi, Richibucto and Bathurst.

In the province of Nova Scotia, marine hospitals are maintained at the ports of Yarmouth, Pictou, Sydney, Lunenburg and Point Tupper. The total expenditure on account of sick seamen in the province of Nova Scotia for the fiscal year amounted to \$26,350.57, and the receipts to \$17,968.20.

At Halifax provision is made for the care of sick seamen at the Victoria General Hospital, under arrangements made with the managers by which the sum of 90 cents per diem is allowed for board and medical attendance.

In the province of Prince Edward Island, the sum expended on account of sick seamen, during the fiscal year was \$1,136.52, and the receipts from sick mariners' dues \$300.34.

Sick seamen are cared for at the Charlottetown and Prince Edward Island hospitals, under arrangements made with the managers of these institutions, at the same rate as is paid to the public hospitals in other parts of the Dominion.

In the province of British Columbia the sum of \$9,337.92 was expended for sick and disabled seamen, while the receipts from the collection of sick mariners' dues amounted to \$10,023.22.

The Marine Hospital at Victoria has in attendance a medical superintendent with a salary of \$300 per annum, and a keeper whose salary is \$500 per annum. He is also allowed a rate of \$5 a week for board and attendance of each seaman.

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At the ports where no hospitals are established, in the province of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, sick seamen are cared for under the chief officer of customs, when the vessel to which the seamen belong has paid the dues according to law. A circular to collectors of customs was issued February 7, 1891, permitting sick seamen to be attended at the port of arrival of vessel, provided that the regular dues were previously paid at some port.

During the fiscal year the sum of \$731.38 was expended for shipwrecked and distressed seamen, for which there was a parliamentary appropriation of \$3,000.

The total expenditure on account of sick seamen and marine hospitals amounted to \$51,000.18, including an expenditure of \$95.65 for printing and stationery, and the appropriation of parliament for the service was \$51,000. The dues collected amounted to \$58,372.34.

The receipts and expenditure in connection with sick and distressed seamen from the year 1869, were as follows:—

		Receipts.	Expenditure.
		\$ cts.	\$ cts.
For the fiscal year ended June 30,	1869.....	31,353 78	26,987 64
"	" 1870.....	31,410 46	27,029 34
"	" 1871.....	29,683 41	28,971 22
"	" 1872.....	34,911 64	34,947 60
"	" 1873.....	37,136 10	41,016 43
"	" 1874.....	41,500 16	59,778 90
"	" 1875.....	37,801 46	50,684 76
"	" 1876.....	41,287 66	48,828 49
"	" 1877.....	43,739 21	51,697 94
"	" 1878.....	44,665 07	43,780 90
"	" 1879.....	37,779 57	42,729 36
"	" 1880.....	42,523 20	42,160 91
"	" 1881.....	49,779 72	40,667 52
"	" 1882.....	45,951 47	39,359 11
"	" 1883.....	45,573 42	36,249 65
"	" 1884.....	48,667 07	39,553 58
"	" 1885.....	39,068 39	44,501 57
"	" 1886.....	40,848 05	50,377 62
"	" 1887.....	42,334 92	37,447 35
"	" 1888.....	41,669 64	36,447 85
"	" 1889.....	39,306 29	41,320 59
"	" 1890.....	47,881 75	41,729 11
"	" 1891.....	43,829 68	35,155 12
"	" 1892.....	45,381 92	33,498 83
"	" 1893.....	46,190 69	35,052 37
"	" 1894.....	49,105 40	38,403 94
"	" 1895.....	42,815 74	38,332 55
"	" 1896.....	45,761 61	36,683 36
"	" 1897.....	54,358 10	35,931 19
"	" 1898.....	54,552 81	34,526 83
"	" 1899.....	57,365 79	37,353 29
"	" 1900.....	59,971 84	32,743 30
"	" 1901.....	59,783 34	34,944 93
"	" 1902.....	65,853 83	51,827 12
"	" 1903.....	64,851 55	48,151 48
"	" 1904.....	61,778 29	50,301 78
"	" 1905.....	58,372 34	51,000 18
		1,704,835 37	1,508,129 51

MERCHANT SHIPPING.

Reports relating to merchant shipping for the calendar year of 1905 have not been received from the registrars of shipping in various parts of the Dominion. The reports are made up to the end of the calendar year, as provided by the Canadian Shipping Act, and therefore, will not be received until some time after the month of January.

The statements showing the number of vessels in the registry books of the Dominion on December 31, 1905, will appear in supplement No. 1 of this report. The number of new vessels built and registered will also be shown, and a comparative statement of the tonnage of new vessels built and registered, from 1874 to 1905, both inclusive.

STEAMBOAT INSPECTION.

The total number of steamboats reported in the several districts in the Dominion is 1,756, of this number 65 were added to the Dominion during the year, the gross tonnage being 301,326.81. Fees were collected for inspection amounting to \$4,932.53; the fees from engineers for certificates amounted to \$1,237.50, making the total receipts from steamboat inspection and engineers' certificates \$6,170.08. The net receipts to the credit of the fund for the previous year amounted to \$10,818.78.

The total expenditure in connection with inspection was \$37,615.31. Increase of expenditure for the last fiscal year, \$3,892.19.

The consolidated laws relating to steamboat inspection came into force on the first day of January, 1889. The report of the chairman of the board of steamboat inspection forms Appendix No. 13.

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The following is a comparative statement of the receipts and expenditures in connection with steamboat inspection:—

		Receipts.	Expenditure.
		\$ cts.	\$ cts.
For the fiscal year ended June 30, 1870.		12,521 29	7,379 18
" " 1871.		10,369 96	8,321 00
" " 1872.		11,710 43	8,500 00
" " 1873.		15,412 75	11,205 54
" " 1874.		15,603 19	10,291 58
" " 1875.		15,011 90	12,199 81
" " 1876.		13,811 24	13,081 86
" " 1877.		15,858 42	12,073 01
" " 1878.		12,431 25	13,228 28
" " 1879.		12,331 16	13,076 46
" " 1880.		15,424 02	11,854 34
" " 1881.		16,905 49	12,211 65
" " 1882.		15,277 78	14,835 97
" " 1883.		12,577 36	16,209 02
" " 1884.		15,371 79	21,893 28
" " 1885.		13,343 66	23,235 04
" " 1886.		14,087 76	21,775 57
" " 1887.		12,701 20	22,837 80
" " 1888.		12,550 14	21,430 45
" " 1889.		12,576 18	22,313 03
" " 1890.		19,859 18	20,989 52
" " 1891.		21,644 72	22,183 76
" " 1892.		20,994 84	22,736 59
" " 1893.		25,295 35	24,386 95
" " 1894.		24,835 47	25,961 36
" " 1895.		24,630 56	26,385 88
" " 1896.		24,002 32	26,321 27
" " 1897.		25,094 95	26,837 83
" " 1898.		31,525 40	26,342 29
" " 1899.		33,854 45	28,035 49
" " 1900.		36,474 83	27,965 92
" " 1901.		34,967 37	29,247 59
" " 1902.		38,458 92	27,493 80
" " 1903.		28,888 09	30,172 09
" " 1904.		10,818 78	33,723 12
" " 1905.		6,170 08	37,615 31
		683,232 23	735,371 64

Owing to an amendment of the Steamboat Inspection Act of 1898, whereby fees for inspection of Dominion registered steamers were abrogated there has been a falling off in receipts compared with those for the previous year, the fees as shown having been collected from steamers inspected but registered elsewhere than in Canada to the number of 129, having a gross tonnage of 160,725.34.

An Act to amend the Steamboat Inspection Act of 1898 was passed and assented to July 18, 1904; the following is a copy:—

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. Subsection 1 of section 6 of The Steamboat Inspection Act, 1898, is amended by adding thereto the following paragraph:—

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(g) for the inspection of the machinery and equipment of steamboats propelled by gas, fluid, naphtha, electricity, or any other mechanical or chemical power, and in case of such vessels for making such changes in forms A and B of the second schedule hereto as he deems advisable.

Name.	Position.	Address.
Edward Adams	Chairman of Board of Steamboat Inspection	Ottawa.
M. P. McElhinney	Inspector of Hulls and Equipment.....	Ottawa.
I. J. Olive	" " "	St. John, N.B.
R. Hill	" " "	Halifax, N.S.
William Evans	" " "	Toronto, Ont.
M. R. Davis	" " "	Kingston.
Philippe Duclos	" " "	Quebec.
R. Collister	" " "	Victoria, B.C.
John Dodds	Inspector of Boilers and Machinery	Toronto, Ont.
E. W. McKean	" " "	Collingwood, Ont.
J. B. Stewart	" " "	Toronto, Ont.
T. P. Thompson	" " "	Kingston, Ont.
Wm. Laurie	" " "	Montreal, P.Q.
L. Arpin	" " "	Montreal, Que.
A. Rondeau	" " "	Sorel, P.Q.
J. Samson	" " "	Quebec, P.Q.
J. P. Esdaile	" " "	Halifax, N.S.
C. E. Dalton	" " "	St. John, N.B.
J. A. Thomson	" " "	Victoria, B.C.
G. P. Phillips	" " "	Kenora, Ont.
Frank M. Richardson	" " "	Vancouver.
C. T. Schmidt	Inspector of Dominion Steamers	Halifax.

WINTER STEAMERS AND ROUTES.

The steamer *Stanley* took up the service between Summerside, P.E.I., and Cape Tormentine, N.B., on December 16, 1904, but on the 22nd of the same month, the strait was found to be packed with heavy ice and the *Stanley* proceeded to Georgetown and entered upon the service between that port and Pictou in conjunction with the steamer *Minto*. In leaving Georgetown on January 25, 1905, the ice was found to be very heavy and the *Stanley* returned to Georgetown, and although, repeated attempts were made to force the steamer through the ice, it was found impossible to cross to Pictou until March 3, when the *Stanley* forced her way to the Pictou ice barrier and the passengers and mails were transferred over the barrier, to the steamer *Minto*, two miles away. The *Stanley* then returned to Georgetown. It was found impossible to make another crossing until March 16, when the ice barrier, off Pictou, was reached and the cargo transferred to the *Minto*. On March 21, the *Stanley* reached Pictou harbour. The steamer continued on the route between Pictou and Georgetown until May 15, with the exception of a few trips that were made to Souris with hay.

The *Stanley* arrived at Charlottetown on May 15 and preparations were made to place the automatic and other buoys.

The *Minto* entered upon the winter service between Charlottetown and Pictou on December 12, 1904, and continued making tri-weekly trips until December 22, when she was placed upon the Georgetown Pictou route, to make tri-weekly trips with the

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steamer *Stanley*, with the intention of giving a daily crossing as far as practicable. On January 25, 1906, it was found impossible to force the steamer through the ice and although several attempts were made with the aid of dynamite and shore men to cut the ice, it was impossible to reach Georgetown until March 23, 1906. On March 27, 1906, the *Minto* grounded off Panmore island in a fog but was pulled off the following day by the *Stanley*. The *Minto* continued on the Pictou-Georgetown route until April 18, when a trip was made to Charlottetown. With the exception of a trip made to Georgetown the *Minto* continued on the Pictou-Charlottetown route until May 5, when the steamer entered the Marconi service.

“MONTCALM.”

This steamer was employed in endeavouring to keep open the ice bridge which forms above the Chaudiere near Quebec. Owing to an accident to the machinery, the *Montcalm* was delayed for three weeks and during this time the ice accumulated to an immense depth, but the steamer broke through several miles and assisted in hastening the departure of the ice bridge, which finally moved on April 20. The inundation which usually takes place in the vicinity of St. Croix and elsewhere was prevented.

As proof of the great service rendered by this steamer towards starting the ice earlier than it naturally moves, it was observed that the ice came from the upper parts of the river more freely. This was noticeable particularly at Cap Rouge in connection with the breaking up of what is termed the ice bridge. The report of the movements of the *Montcalm* by Captain Keonig is attached to Commander Spain's report of Dominion steamers, Appendix No. 4.

“CHAMPLAIN.”

This steamer is also an ice breaker and has been engaged as a ferry steamer running between River Ouelle wharf and Murray Bay. Communication between these points, Cap à l'Aigle and St. Irene was kept up pretty regularly until an accident occurred to the *Champlain*, and it was necessary to make repairs to the steamer. The *Champlain* was very much strengthened by putting a guard on her. The steamer *Eureka* replaced the *Champlain* while she was laid up for repairs.

CORRESPONDENCE.

About 33,148 letters were received in the department during the fiscal year. The correspondence was carefully examined and replied to as far as necessary. About 19,000 letters were sent out during the same period. Forms, reports, circular letters and notices inviting tenders, are not included in the number of letters addressed to this department or sent out.

These forms, &c., are numerous and require special attention, as the matters to which they refer are important.

In the records branch of the department, the letters received are carefully examined, entered in the record book, placed on file, and the copy of the reply attached, so that the letters and answers can readily be seen and any subject easily followed up.

CONTRACTS.

Contracts pertaining to the various branches of the service are numerous and are made out under my supervision, by Mr. W. W. Stumbles, who has had long and varied experience in dealing with tenders and contracts in the department.

WIRELESS TELEGRAPH STATIONS.

There are now 13 wireless telegraph stations established for the benefit of navigation and commercial purposes. Apparatus has been installed in all the stations. The steamers *Stanley* and *Minto* were employed during the season of navigation in conveying men and material to the stations that were established during 1905, and these steamers are equipped for receiving wireless messages. The steamer *Lady Laurier*, engaged in the lighthouse and buoy service, Nova Scotia, has also been equipped in the same manner.

At some of the stations numerous messages have been received, but the department has not yet completed arrangements for reports of the exact number transmitted or received at each station in connection with shipping.

The station buildings were erected and equipped under contract with the Marconi Wireless Telegraph Company of Canada, and that company must transact its business under license from the Minister of Marine and Fisheries, with the consent of the Governor General in Council, as provided in the Canadian Statute 4-5 Edward VII., chap. 49.

The establishment of these stations has been of great assistance to shipping, as testified by managing owners of steamship lines. The report of wireless telegraphy forms Appendix No. 6. The amount of expenditure for the fiscal year in connection with this service, will be found in the statement of expenditure, Appendix No. 14.

INVESTIGATIONS INTO WRECKS.

Investigations were held into the causes of wrecks and other casualties in the River and Gulf of St. Lawrence, on the Atlantic coast and the Great Lakes. There was no loss of life in connection with the casualties in the River and Gulf of St. Lawrence, and it was shown by the investigations that the accidents were due to careless navigation. The details of the investigations will be found in Commander O. G. V. Spain's report which forms Appendix No. 5 to this report.

BUOYS AND BEACONS.

The extended coast line of Canada, numerous bays, inlets, rivers, lakes, harbours and other navigable waters require a large number of buoys. Annually the number of buoys has been increased and the total expenditure for the year 1904-5 amounted to \$129,570.87. The cost of the service is materially increased in years when large contracts are made for steel signal, gas and other coast buoys.

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The districts now buoyed number about 390 and the buoys number about 4,400. A record of the names of the shoals, dangers, reefs and various points in channels, harbours, &c., where buoys are placed, is carefully maintained; this enables the department to immediately locate the buoys when any reference is made to them in the correspondence.

The contract system has been found to work most economically but not always as efficiently as desirable, owing to neglect on the part of some contractors to carry out the conditions of their contracts; in the majority of instances the contracts are immediately under the supervision of departmental officers, whose duty it is to report to the department any neglect of work on the part of the contractors. There are now about 260 contracts. These contracts are generally made for a period of three years. The contractors are paid semi-annually upon the certificate of the superintending officer. There are, however, some districts not under contract; the work being attended to by the harbour masters. In these cases it has been found more advantageous to place the work immediately in the hands of these officers.

A large number of whistling, gas, bell and other iron buoys are maintained along the coast of the several provinces, by Dominion steamers, particularly on the Nova Scotia, New Brunswick and British Columbia coast. These buoys are called coast buoys to distinguish them from harbour buoys. The cost of this maintenance by the steamers is not charged directly to the buoy service, but is included in the cost of maintenance of the steamers, which frequently perform the double duty of attending to lighthouses and the coast buoy service on the same trip.

The expenditure in connection with the buoy service for the year ended June 30, 1905, was as follows :—

For the province of Quebec, including the port of	
Montreal..	62,160 46
Above Montreal, including Ontario..	6,852 99
Nova Scotia..	28,268 71
New Brunswick..	18,006 33
British Columbia..	9,848 32
Prince Edward Island..	4,434 06
<hr/>	
Total..	\$129,570 87

In addition to the buoys for marking dangers, 119 gas buoys are maintained showing in general, occulting lights ; 23 in the Quebec Agency, on the St. Lawrence river ; 40 between Platon and Montreal ; 36 between Montreal and Kingston ; 1 in Pelee Passage ; 1 at the mouth of the Detroit river ; 1 at Port Colborne ; 7 in Georgian bay ; 2 at Port Arthur ; 6 in Nova Scotia ; 1 in New Brunswick and 1 in Prince Edward Island.

The coast buoy service maintained by Dominion steamers on the coast of Nova Scotia, consists of 36 automatic whistling buoys, 6 gas buoys, 23 bell buoys and 160 steel can and conical buoys. In New Brunswick Agency there are maintained in the same way 22 signal buoys, 21 steel can and conical buoys and one bell boat. The signal coast buoys of Prince Edward Island number 7, and the steel can and conical buoys 6.

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In the province of Quebec there are 75 steel can and conical buoys, 1 bell buoy and 1 whistling buoy maintained by the Dominion steamers.

The steamer *Shamrock* is constantly employed in the buoy service on the St. Lawrence river between Montreal and Quebec, and the steamer *Scout* between Montreal and Kingston; the latter steamer attends to the gas buoys above Montreal on the St. Lawrence river. The steamer *Druid* performs the buoy service below Quebec and attends to the gas buoys in the Quebec district.

The coast buoy service in British Columbia is performed by the Dominion steamer *Quadra*, and the list of buoys in the report of the Commissioner of Lights shows the number of steel and other buoys. The service at the mouth of the Fraser river is performed by the Public Works steamer *Samson*, employed for the buoy service by this department.

Tenders were invited during the past year for the following steel buoys for the different agencies, viz., 5 steel conical buoys 5½ feet in diameter, 3 steel can buoys, 5 feet in diameter and 5 steel can buoys, 4 feet in diameter, for the Nova Scotia agency. The cost of each kind of buoy was as follows —

Conical 5½ feet in diameter..	\$145 each.
Can 5 feet in diameter..	126 “
Can 4 feet in diameter..	95 “

CERTIFICATES TO MASTERS AND MATES.

During the year ended June 30, 1905, 60 candidates applied for examination as masters, mates or second mates, in the foreign trade, and 11 failed—11 masters', 18 mates' and 20 second mates' foreign sea-going certificates were issued, and 354 candidates applied for examination as masters and mates in the inland or coasting trade, and 34 failed—228 masters', and 92 mates' inland and coasting certificates were issued.

FOREIGN SEA-GOING CERTIFICATES.

Examinations for foreign sea-going certificates were held, as follows:—

At Halifax, N.S., 4 applicants for masters' certificates, 6 for mates' certificates, and 5 for second mates' certificates were examined, 3 applicants for masters' certificates, 2 for mates' certificates and 1 for a second mate's certificate, failed.

At Yarmouth, N.S., 5 applicants for masters' certificates, 5 for mates' certificates, and 9 for second mates' certificates were examined, 3 applicants for second mates' certificates failed.

At St. John, N.B., 4 applicants for masters' certificates, 7 for mates' certificates and 7 for second mates' certificates were examined, 1 applicant for a mate's certificate failed.

At Victoria, B.C., 1 applicant was examined for a master's certificate, 4 for mates' certificates and 3 for second mates' certificates, 1 applicant for a mate's certificate failed.

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INLAND AND COASTING CERTIFICATES.

Examinations for inland and coasting certificates were held, as follows:—

At Halifax, N.S., 16 applicants for masters' certificates and 3 for mates' certificates were examined, 2 applicants for masters' certificates and 1 for a mate's certificate failed.

At Yarmouth, N.S., 8 applicants for masters' certificates and 2 for mates' certificates were examined, 2 applicants for masters' certificates failed.

At Sydney, N.S., 19 applicants for masters' certificates and 2 for mates' certificates were examined, 2 applicants for masters' certificates failed.

At Lunenburg, N.S., 1 applicant for a master's certificate and 1 for a mate's certificate were examined.

At St. John, N.B., 22 applicants for masters' certificates and 7 for mates' certificates were examined, 2 applicants for masters' certificates failed.

At Charlottetown, P.E.I., 3 applicants for masters' certificates were examined.

At Quebec, P.Q., 20 applicants for masters' certificates and 17 for mates' certificates were examined, 2 applicants for masters' certificates and 4 for mates' certificates failed.

At Ottawa, Ont., 32 applicants for masters' certificates and 2 for mates' certificates were examined, 5 applicants for masters' certificates and 1 for a mate's certificate failed.

At Kingston, Ont., 21 applicants for masters' certificates and 23 for mates' certificates were examined, 3 applicants for masters' certificates failed.

At St. Catharines, Ont., 42 applicants for masters' certificates and 21 for mates' certificates were examined, 3 applicants for masters' certificates and 1 for a mate's certificate failed.

At Rat Portage, Ont., 16 applicants for masters' certificates and 2 for mates' certificates were examined, 5 applicants for masters' certificates failed.

At Victoria, B.C., 9 applicants for masters' certificates and 7 for mates' certificates were examined.

At Vancouver, B.C., 29 applicants for masters' certificates and 8 for mates' certificates were examined.

At Arrowhead, B.C., 1 applicant for a mate's certificate was examined.

Nineteen (19) persons applied to collectors of customs for certificates as masters of tug boats.

The total amount collected in fees from applicants for certificates during the fiscal year ended June 30, 1905, was \$4,643.85, and the amount expended on account of this service was \$5,884.74, an excess of expenditure over receipts of \$1,240.89.

The vote for this service was \$7,000, leaving an unexpended balance of \$1,115.26.

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The following statement shows the total receipts and expenditure on account of masters and mates since 1871:—

	Expenditure.	Receipts.
	\$ cts.	\$ cts.
For the fiscal year ended June 30, 1871.....	1,410 45	
" " 1872.....	4,312 07	1,344 00
" " 1873.....	6,466 18	4,963 00
" " 1874.....	4,520 19	2,995 00
" " 1875.....	5,696 62	2,715 00
" " 1876.....	4,672 08	2,021 87
" " 1877.....	4,050 00	1,740 50
" " 1878.....	4,249 76	1,296 50
" " 1879.....	4,250 12	1,334 50
" " 1880.....	4,253 43	1,547 00
" " 1881.....	3,888 41	1,333 50
" " 1882.....	3,965 19	1,152 50
" " 1883.....	4,021 20	1,314 00
" " 1884.....	3,909 59	9,437 50
" " 1885.....	4,324 15	2,897 00
" " 1886.....	5,245 28	2,152 00
" " 1887.....	4,855 98	2,172 00
" " 1888.....	5,060 96	3,220 80
" " 1889.....	4,381 04	2,202 00
" " 1890.....	4,117 83	2,186 00
" " 1891.....	4,255 24	2,586 00
" " 1892.....	4,363 88	2,194 00
" " 1893.....	4,116 99	2,484 00
" " 1894.....	3,721 33	2,904 04
" " 1895.....	3,758 29	3,974 50
" " 1896.....	4,062 82	2,307 50
" " 1897.....	3,536 29	3,754 00
" " 1898.....	3,335 40	4,800 00
" " 1899.....	3,568 26	4,486 50
" " 1900.....	3,750 69	4,221 50
" " 1901.....	3,720 25	4,808 24
" " 1902.....	3,305 59	5,288 52
" " 1903.....	4,968 36	5,790 50
" " 1904.....	7,761 17	4,795 00
" " 1905.....	5,884 74	4,643 85
Expenditure	151,769 83	107,065 82
Receipts.....	107,065 82	
Excess of expenditure over receipts.....	44,704 01	

ICE BOAT SERVICE BETWEEN CAPES TRAVERSE AND TORMENTINE.

The crews of the small ice boats were engaged in January and made their first crossing on the 27th of that month. Six boats left Cape Traverse and six left Cape Tormentine each morning, when practicable, and continued on the route until March 30, 1905.

The gross earnings of the boats during the season amounted to \$326.74. The strap passengers carried both ways numbered 142, and the mail matter amounted to 99,150 pounds.

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OUTSIDE SERVICE, MARINE BRANCH.

In addition to the staff at Ottawa there is an outside service, under the jurisdiction of the department, numbering about 2,100. It consists of the agents and their respective staffs : Superintendents of Lights ; Lightkeepers throughout the Dominion ; Officers and crews of Dominion steamers and vessels including the Fisheries Protection Service ; Coxswains of life-boats ; Inspectors of Steamboats ; Inspectors of Shipment of live stock ; Examiners of masters and mates ; Officers and servants in Marine hospitals ; Shipping masters ; Harbour masters ; Meteorological observers ; Officers of observatories ; Hydrographers and civil engineers, their assistants and machinists ; Receivers of wreck ; Wharfingers ; Attendants at Humane Establishments, also messengers employed in the several agencies and in the Meteorological Office at Toronto.

Besides the above mentioned there are registrars of shipping who act under the direction and control of this department but are at the same time collectors of customs at the various ports of registration but receive no fees in their capacity of registrars. There are measuring surveyors of shipping throughout the Dominion who act as officers of the department and are remunerated from their fees of office although in addition to such fees many of them hold positions in the Customs Service. Also in addition to the above, by Orders in Council, of April 21, and December 2, 1874, the Chief Officer of Customs at each port in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia, and Prince Edward Island where no separate shipping office has been established is to be held and deemed a shipping master, is to receive the fees, make yearly returns to the department and act in that capacity under its directions.

LIFE BOAT STATIONS.

There are 28 life-saving stations in the Dominion of Canada. Most of these have crews that drill twice or three times a month. The men are paid \$2 for each drill and an extra sum is paid when any service is rendered to shipwrecked mariners.

At Long Point, Lake Erie, the men are permanently stationed during the months of September, October and November at the life-saving station which is well equipped for their accommodation and the accommodation of those who may be rescued. The men receive \$40 per month during the three months and are paid for weekly drills during the other months of the season of navigation.

Cobourg, Ont.—The life-boat crew at Cobourg, went to the assistance of two boys who were adrift in a small sail boat that had become unmanageable, about four miles off the harbour. A strong northerly wind was blowing at the time, but the life-boat crew, with the assistance of a small steam yacht that also went to the rescue, brought the boys safely to shore.

Port Hope, Ont.—The schooner *Oliver Mowat* ran aground about $\frac{1}{4}$ of a mile off Oshawa on November 28 last during a snow storm and high wind. When she struck, the sea broke over her stern and destroyed her boat leaving those on board without

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any means of getting off. A request was sent from Oshawa to Port Hope for assistance and the life-saving crew proceeded to Oshawa, by special train, provided by the Grand Trunk Railway Company. On arriving at Port Hope the life-saving crew went to the stranded vessel, and, although there was a heavy sea running, they succeeded in rescuing all hands, numbering six persons.

Duncan's Cove.—New iron launching ways were constructed at this station.

Blanche Station.—Extensive repairs and improvements are now being made to the launching ways.

Pictou Island.—The launching ways at this station were also repaired and improved.

A statement of the life-boat stations forms part of Appendix No. 11 to this report.

OIL FOR USE OF LIGHTHOUSES.

The department entered into a contract with the Canadian General Supply Company, Ltd., of Montreal, for supplying lighthouse oil for the season of 1905.

The specification upon which the contract was based required the oil to weigh at 62° Fahr., not less than 7·85 lb. nor more than 8 lb. per gallon, and to withstand a flash test of 115° Fahr.

Oil was also purchased from the Standard Oil Company, of New York, for use in the dioptric lights. The oil supplied by the Standard Oil Company was made according to a specification prepared by the American Lighthouse Board.

COASTING TRADE OF CANADA.

By the provisions of chapter 83, Consolidated Statutes of Canada, being an Act respecting the Coasting Trade of Canada, no goods or passengers can be carried by water from one port in Canada to another except in British ships, but the Governor in Council may from time to time declare that the Act shall not apply to ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country, the parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act, 32 Vic., chapter 11, intituled; 'An Act to amend the law relating to the Coasting Trade and Merchant Shipping of British Possessions' which came into operation in this country on its proclamation by the Governor General on October 23, 1869.

It was ascertained that the following countries, viz., Italy, Germany, and Netherlands, Sweden and Norway, Austria-Hungary, Denmark, Belgium and the Argentine Republic allowed British ships or vessels to participate in their coasting trade on the same footing as their own national vessels:—the ships of Italy, by Order in Council of August 13, 1873; those of Germany, by Order in Council of May 14, 1874; those of the Netherlands, by Order in Council of September 9, 1874; those of Sweden and Nor-

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way, by Order in Council of November 5, 1874; those of Austro-Hungary, by Order in Council of June 1, 1876; those of Denmark, by Order in Council of January 25, 1877; those of Belgium, by Order in Council of September 30, 1879; and those of Argentine Republic, by Order in Council of May 18, 1881, were admitted to the coasting trade of Canada.

The following Act, entitled an Act respecting the Coasting Trade of Canada, was assented to May 15, 1902, and relates to the payment of duty on foreign built British ships:—

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. In this Act, unless the context otherwise requires, the expression ‘British Ships’ means and includes all ships belonging wholly to persons qualified or entitled to be owners of British ships, under the provisions of ‘The Merchant Shipping Act, 1894.’ any other Act of Parliament of the United Kingdom in that behalf, in force for the time being.

(2) For all purposes of this Act the expression ‘the coasting trade of Canada’ shall be deemed to include the carriage by water of goods or passengers from one port or place in Canada to another port or place in Canada.

2. No foreign-built British ship, whether registered in Canada or elsewhere, shall be entitled to engage or take part in the coasting trade of Canada, unless such foreign-built British ship has first obtained a license for that purpose, which may be granted by the Minister of Customs.

(2) The Minister of Customs shall issue such license to any foreign-built British ship, whether registered in Canada or elsewhere, upon application therefor and upon the payment of a duty of twenty-five per cent ad valorem on the fair market value of the hull, rigging, machinery, boilers, furniture and appurtenances of such ship.

(3) This section shall not apply to any foreign-built British ship registered as a British ship prior to the first day of September, 1902.

3. No goods or passengers shall be carried by water, from one port of Canada to another, except in British ships; and if any goods or passengers are so carried, as aforesaid, contrary to this Act, the master of the ship or vessel so carrying them shall incur a penalty of four hundred dollars; and any goods so carried shall be forfeited, as smuggled; and such ship or vessel may be detained by the Collector of Customs, at any port or place to which such goods or passengers are brought, until such penalty is paid, or security for the payment thereof given to his satisfaction, and until such goods are delivered up to him, to be dealt with as goods forfeited under the provisions of the Customs Act.

4. The master of any steam vessel, not being a British ship, engaged, or having been engaged, in towing any ship, vessel or raft, from one port or place in Canada to another, except in case of distress, shall incur a penalty of four hundred dollars; and such steam vessel may be detained by the Collector of Customs at any port or place to or in which such ship, vessel or raft is towed, until such penalty is paid.

5. Penalties and forfeitures under this Act may be recovered and enforced in the manner provided by The Customs Act, with respect to penalties and forfeitures incurred under it, and as if imposed by it; and this Act shall accordingly be construed with reference to said Act, and as forming one Act with it, and all words and expressions in this Act shall have the same meaning as the like words and expressions in said Act.

6. The Governor in Council may, from time to time, declare that the foregoing provisions of this Act shall not apply to the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country.

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7. Where by treaty made before the passing of 'The Merchant Shipping (Colonial) Act, 1869,' (that is to say before the thirteenth day of May, eighteen hundred and sixty-nine), Her late Majesty, Queen Victoria, agreed to grant to any ships of any foreign state any rights or privileges in respect of the coasting trade of Canada, those rights and privileges shall be enjoyed by those ships for so long as Her late Majesty agreed, or His Majesty the King may hereafter agree, to grant them.

8. Chapter 83 of the Revised Statutes is repealed.

LEGISLATION.

During the session of 1905, the following Acts were passed and assented to :—

An Act respecting the powers of the Harbour Commissioners of Montreal.

An Act to amend the Quebec Harbour Commissioners Act, 1899.

An Act respecting the Port and Pilotage District of Quebec.

An Act to amend the Seamen's Act.

An Act to provide for the regulation of Wireless Telegraphy in Canada.

F. GOURDEAU, Lt.-Col.,

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,

OTTAWA, January, 1906.

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APPENDIX No. 1.

ANNUAL REPORT OF THE CHIEF ENGINEER OF THE DEPARTMENT
OF MARINE AND FISHERIES.

The Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit a report of the work done in the several services under the supervision of this office during the twelve months ended November 30, 1905.

This embraces most of the technical work at departmental headquarters, including the construction of lighthouses, lightships, fog-alarms, buoys and beacons; the supervision of construction and repairs of lifeboats; the administration of the vote for the removal of wrecks and obstructions in navigable waters; tidal and current surveys; hydrographic surveys, and the publication, examination and correction of hydrographic charts; construction of and repairs to fish hatcheries and refrigerators; engineering points in connection with the construction and maintenance of fish-passes; supervision of surveys of oyster beds; examination of applications for foreshore, wharf and water lots as they affect the interests of navigation; preparation and publication of notices to mariners and hydrographic notes, &c.

STAFF.

There are special staffs appointed for the tidal observation work and for the hydrographic survey work; the remainder of the work of the branch is attended to by the general staff of the office.

The great increase in the amount voted for construction of aids to navigation during the past two years has thrown upon this office a great rush of additional work and to meet the increased demands it has been necessary largely to increase the staff and also to modify the system of doing work. For this purpose resident engineers have been appointed in connection with two of the agencies, and assistants from the headquarters staff have been frequently detached for special work in connection with large undertakings. I wish again to testify to the satisfactory work done by the technical staff, and once more to allude to the energy of Mr. B. H. Fraser, who is gradually assuming direction of all construction work, besides specially directing fog alarm installations and experiments.

In connection with the policy of appointing resident engineers Mr. P. E. Parent, who was previously in charge of the hydrographic survey of the River St. Lawrence, was on July 20, 1905, appointed resident engineer of the department at Quebec at a salary of \$2,000 per annum.

On June 16, 1905, Mr. J. A. Légère, who had had a short previous experience in my branch, and who last year was appointed resident engineer of the Department of Public Works in New Brunswick, was appointed resident engineer of this department for the maritime provinces, with headquarters at Halifax, at a salary of \$1,500 per annum.

Mr. J. H. Dubuc, of my staff, has been engaged as resident engineer at Sorel since June 23, 1905, in superintending the construction of the extensive piers and lighthouses which this department is building in Lake St. Peter.

Mr. J. F. Murphy was similarly detached on June 6, 1905, to superintend the construction of Beaujeu Bank pier, and only returned to this office on November 9. Immediately afterwards he was again sent out on a special survey.

Mr. H. E. Foster has been, since May 26, 1905, in the maritime provinces superintending the construction of new fog alarm buildings, and since Mr. Légère's appointment has been acting under his directions.

The following new appointments have been made :—

On September 27, 1905, Mr. H. J. Alward was appointed assistant engineer at a salary of \$900 per annum. On October 9, he was sent to Collingwood to superintend the construction of new piers and lighthouses at that place.

On October 16, 1905, Mr. E. R. Beckwith was engaged as architect and draughtsman at a salary of \$75 per month.

On September 26, 1905, Mr. L. Bourgeois was appointed draughtsman at a salary of \$75 per month. On November 8, he was transferred to the office of the Superintendent of government shipyards, Sorel.

On July 17, 1905, Mr. G. E. Dowling was appointed a draughtsman at a salary of \$50 a month.

On March 6, 1905, Mr. F. McDonnell was appointed a draughtsman at a salary of \$60 per month. Mr. McDonnell having had experience as a mechanical engineer has been frequently sent out to install fog alarm machinery and is now employed at that work in the maritime provinces.

On November 20, 1905, Mr. G. R. Cosky was appointed draughtsman at a salary of \$60 per month.

On July 14, Mr. L. Matton was appointed as typewriter, &c., at \$41.66 a month.

On May 12, 1905, Mr. J. L. Burnand resigned his position as draughtsman. Mr. L. Côté has been transferred to the staff of the Commissioner of Lighthouses.

As foreman of works, Mr. W. H. Brunel has been employed throughout the year superintending the construction of new works on the upper lakes. Mr. F. Foster was again employed superintending the construction of repairs to the lighthouse foundations at Colchester reef. Mr. M. J. Egan was employed during the open season as foreman of works on the upper lakes and Lake Winnipeg. Mr. W. K. Morris, on lighthouse repairs on lakes Erie and Ontario, and Mr. A. J. Beaudry, on the construction of a lightkeeper's dwelling at Tobermory.

OFFICE WORK.

A large proportion of the work done by the general staff of the branch consists in the construction, repair or improvement of light buildings, fog alarms, buoys, beacons and other aids to navigation. Full details of the work done in this connection during the past twelve months are contained in a separate report which is attached hereto. (Inclosure A.)

Plans and specifications for all important new buildings and repairs, new vessels, buoys, &c., are made or approved in this office.

The following table indicates the work done in the draughting office during the twelve months ended November 30, 1905 :—

Description of work.	Plans designed.	Plans received.	Copies made.
Lighthouse towers and dwellings	40	10	183
Fog alarm buildings	6	5	22
Details	24	9	103
Wharfs, piers, &c	6	3	21
Outbuildings	2		32
Machinery		25	5
Lanterns and illuminating apparatus		7	2
Fish hatcheries	3		20
Marine hospitals	1	1	7
Steamers		1	10
Land surveys	5	20	53
Charts under construction	1		
Miscellaneous	13	118	100
Plans relating to foreshore	6	145	31
	107	344	589

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Total plans for twelve months from December 1, 1904, to November 30, 1905.....	1,040
Charts received and recorded	269
Charts received and entered in chart book	20
Photographs received and recorded	156
Specifications written	41
Notices to mariners issued (comprising 280 subjects).....	127

PUBLICATIONS.

The work of preparing and issuing notices to mariners continues to be heavy and urgent, during the past twelve months 127 notices, covering 280 subjects, having been published. Amongst important notices, involving considerable labour in compilation, and representing useful work done in the department, are:—

An index to last year's notices; hydrographic notes respecting uncharted dangers in Queen Charlotte Sound, Broughton strait, Laredo channel, Schooner passage and Douglas channel; description of buoyage between Sober island and Ecumsecum; and general information respecting Anticosti island.

In the preparation of notices to mariners, I wish to testify to the faithful and accurate work done by Mr. J. M. O'Hanly, who assists in this branch of the routine work.

During the past twelve months notices relating to waters outside of Canada were issued, covering 11 items relating to Newfoundland and the French islands, 4 items relating to the Atlantic, 11 to the inland, and 9 to the Pacific waters of the United States, as well as 34 notices referring to transatlantic, and 5 to transpacific, subjects. No attempt is made to issue a complete synopsis of British or foreign notices, but merely to republish items likely to be of immediate interest to Canadian vessels, or to vessels leaving Canadian ports for the more important or frequented foreign ports.

The annual edition of the list of lights and fog signals in Canada, corrected to April 1, 1905, was issued on June 1; special partial extracts, covering the great lakes and the Pacific coast respectively, also being published, as usual.

REMOVAL OF OBSTRUCTIONS.

During the past twelve months the following work was done, under the annual appropriation for the removal of wrecks and obstructions:—

The wreck of the steam barge *Alvin A. Turner*, which was sunk in Little Detroit, north channel of Lake Huron, on October 18, 1905, and abandoned by the owners, was completely removed by the contractors, the Midland Towing and Wrecking Company, of Midland, Ont., on November 26, 1905; the contract price being \$2,600.

The schooner *Ocean Belle* was sunk in the channel of the St. Mary river, at Sherbrooke, N.S., on May 4, 1905. The owner failing to remove the obstruction, a contract was let to Mr. James Jordan, of Sherbrooke, which was satisfactorily carried out on October 27, 1905; the contract price being \$150.

The schooner *Laura* was sunk in the harbour of Margaree, N.S., in the spring of 1904, and a contract has been let to Mr. Simon Chiasson, of Belle Cote, N.S., to remove the wreck, the contract price being \$300.

The American fishing schooner *Columbia* was run down and sunk on June 26, 1905, in Sydney harbour, N.S., forming a menace to navigation. The owners failing to remove the obstruction, a contract was let to Mr. C. A. Larder, of North Sydney, N.S., who removed the wreck on September 15, 1905, without expense to the department.

The schooner *William Jones* was, in July, 1905, partly submerged near the Grand Trunk Railway Company's property at Windsor, Ont., forming an obstruction to navigation, and was removed by Captain Baker, of Windsor, on October 26, 1905, without expense to the department.

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The schooner *Pearl* was sunk in the bed of the Shepody river, near Harvey, N.B., in September, 1905, forming a menace to navigation; the owners have been notified to remove the wreck immediately, failing which the department will perform the work and recover the expenses incurred thereby from the owners.

The tow barge *Tasmania* was sunk in 7 fathoms water, about three miles from the lightship in the vicinity of Pelee island, Lake Erie. The owners have been notified to remove the obstruction immediately, failing which the department will perform the work and recover the cost from the owners.

The schooner *Coral Leaf* was sunk in the channel of the Jordan river, N.S., in June, 1905, forming an obstruction to navigation. The owner has been notified to remove the wreck, failing which the department will carry out the work and recover the expenses from the owner.

HYDROGRAPHIC WORK.

The hydrographic surveys of this department are now in charge of Mr. W. J. Stewart, who will make a special report of the year's progress.

All hydrographic notes reaching the department are prepared for publication in this office, and embodied in notices to mariners.

In connection with the resurvey of the ship channel between Montreal and Quebec, begun by the Department of Public Works and now taken over by our hydrographic branch, a series of photo-lithographic charts, in colours, is being prepared, embodying the results of the survey; the first of these, embracing the stretch from Longue Pointe to Varennes, was issued in July, 1905; this chart is given the number 2. The portion from Montreal to Longue Pointe, which should be included in chart No. 1, being in the harbour of Montreal, was not resurveyed by the government, but a chart of the harbour, uniform with the above, should be published by the Montreal Harbour Commissioners to form sheet No. 1 of the series.

Sailing directions for the Canadian shore of Lake Huron, prepared by Mr. W. J. Stewart, to accompany the charts containing the results of his survey, were published in May, 1905.

In preparing notices to mariners special attention has been paid to publishing all information obtainable respecting the hydrography of Canada, and the fullest possible sailing directions have been appended to all descriptions of aids to navigation, so as to increase the value of these notices. During the past twelve months the following hydrographic notes were published:—

Affecting the Atlantic coast.—Notice of drifting of bell buoy off North-west ledge, N.S.; uncharted rock reported in entrance to Lockeport, N.S., by Capt. P. C. Johnson, D.G.S. *Lady Laurier*; construction of breakwater at Dipper harbour; sinking of ss. *Damara*, off Jeddore Head, N.S., in 14 fathoms water; sinking of *Columbia*, at entrance to Sydney harbour, N.S. in 10 fathoms water; corrected position of bell buoy marking Fitzroy rock, P.E.I.; and discontinuance of storm signals at Point Lepreau and Port Morien.

Gulf and River St. Lawrence.—A valuable hydrographic note, containing information respecting the climate, productions, fisheries, rivers, &c., of Anticosti island, furnished by M. Geo. Martin-Zédé, representative of M. Menier, proprietor of the island; changing of the eastern limits of Quebec pilotage district from Bic island to Father Point; establishment of storm signals at Ste. Adelaide de Pabos, L'Anse au Beaufils, and Barachois de Malbaie; description of a float, anchored off Ile Ste. Thérèse, furnished by the Charlemagne and Lac Ouvreau Lumber Co., to serve as a mooring for canal boats; geographic position of Ste. Félicité fog alarm; publication by the department of hydrographic chart No. 2 of the River St. Lawrence, from Longue Pointe to

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Varennés, the results of a survey carried out by the hydrographic survey party under this department; laying of submarine telephone cable across River St. Lawrence between Doucets Landing and Three Rivers; and location and marking of Morin shoal, between Murray bay and Kamouraska.

Inland waters.—Three uncharted shoals north of Bass islands, Lake Erie; change in position and improvement of Fort William and Southampton storm signals; position of derelict *Tasmania*, from information provided by United States Lake Survey office; temporary discontinuance of storm signal at Pelee island; establishment of storm signal in Toronto harbour; publication of sailing directions for the Canadian shore of Lake Huron, the results of surveys of Mr. Wm. J. Stewart, hydrographer of the department; sinking of steam barge *Alvin A. Turner*, in Little Detroit, North channel of Lake Huron, reported by Capt. E. Mackie, of ss. *Iroquois*, and a subsequent notice of removal; and announcement of department's intention to keep in operation all lights on the Great Lakes until December 15, 1905.

Pacific coast.—Commander J. F. Parry, R.N., H.M.S. *Egeria* has kindly furnished us with valuable hydrographical notes describing uncharted dangers found in the course of his hydrographic work in British Columbia waters as follows: Two uncharted rocks off Thetis island; uncharted rock in Pylades channel; one on Gabriola reef, and one off eastern entrance to Gabriola pass; seven uncharted shoals in Ganges harbour; caution with reference to setting of ebb tide in Captain passage; decreased depth of water in Pender island canal; several uncharted dangers in Porlier pass, with sailing directions for vessels entering the pass from the northward; and three uncharted shoals in the approach to Dodd narrows from Stuart channel.

The department is also indebted to Captain F. T. Saunders, ss. *Coquitlam*, for report of kelp patch off Donegal head, Malcolm island; for report of several uncharted rocks and kelp patches in approaches to Knight and Kingcome inlets; to Capt. Hughes, ss. *Princess Beatrice*, for reports of uncharted rock between Dolphin and Spicer islands, Schooner passage, and two uncharted rocks in Douglas channel; and to Capt. Holmes Newcomb, D.G.S. *Kestrel*, for reports of uncharted rocks in Laredo channel, and four uncharted dangers in Chatham sound. Drying at low water of shoal off Holland island, reported by Captain J. T. Walbran; information respecting positions of Western Union telegraph cable between Vancouver island and United States mainland, furnished by Mr. R. T. Reid, Superintendent of the Company; changing of name of 'Provost' island, Queen Charlotte group, to 'Kunghit' island, by Geographic Board of Canada; arc of visibility of Birnie island light; and hydrographical notes respecting Uchucklesit harbour; Anderson's wharf, Canoe island; Richard rock; Sisters islands; Toquart harbour; and Round and Castle islands; all in Barkley sound, from inspection notes of the undersigned.

TIDAL AND CURRENT SURVEY.

This survey has made exceptional progress in its tidal branch, during the past year; but the investigation of currents was not continued, because the D.G.S. *Gulnare* was required for hydrographic survey work. The plans for the season's work were rearranged at short notice, and the Pacific coast was given the benefit of the change of programme. The importance of extending the scope of the work in British Columbia had long been foreseen, and appliances which had been held in readiness for this opportunity were immediately utilized. Dr. W. B. Dawson, the Engineer in charge of the Survey, gave his personal supervision to the work in the Pacific province from June to October; assisted by Mr. S. C. Hayden. The inspection of the tidal stations on the Atlantic coast, as far north as Labrador, was entrusted to Mr. H. W. Jones; and during the summer months Mr. R. Angus attended to the work of the survey at headquarters in Ottawa.

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The postponement of current work rendered it possible during the year to overtake some part of the arrears in tidal record awaiting reduction, to improve the accuracy of the tide tables. The improvement secured is of permanent advantage to the St. Lawrence route. The tide tables for ports in British Columbia will also benefit by the further reduction of record which has been made.

The Pacific Coast.—During last season, a general basis for the tidal information required on this coast has been carefully planned and carried out. This is a new departure; as heretofore the work done has been confined to individual straits and narrows and to harbours of importance in themselves, but not always suitable as ports of reference for the surrounding regions.

There is still a large part of the coast of British Columbia which is dependent upon the United States tide tables, which is far from satisfactory; it is thus necessary to compute our tides and currents from some distant port in Alaska, or from a harbour where the tide is of a distinctly different type, such as Port Townsend. Our Canadian tide tables already meet with much appreciation, however, not the least of which is their publication in all the leading newspapers of the province.

It is very evident that a large number of industries on this coast will always be dependent upon water transport. For timber, which is the bulkiest, it will always be cheaper to tow the logs to a sawmill than to multiply the number of mills. In the coal trade, the fishing business and others, it would not be possible for a railway to compete with water carriage where the choice exists. In short, there can be no question that water transport will be used wherever it is to be had. This coast has a greater advantage than almost any other in the world for coastal trade, with its series of sheltered inlets and channels forming gigantic natural canals which extend the whole length of the seaboard and cut deeply in toward the interior, for the admission of traffic and supplies, and return freight.

To take advantage of all this, the tides and currents must be known. This is indeed of more importance to navigation than anything else, when once the coasts themselves are charted; as no other aids to navigation can make up to a captain for not knowing which way the current is setting his vessel.

On a coast of such extent and with so many local complications in its tides, it is necessary to devise a comprehensive scheme which will form a basis for the details required locally. With this view, the coast may be divided into three regions, (1) the Strait of Georgia, (2) the northern coast to Port Simpson, (3) the outer coast of Vancouver island. In this scheme, Fuca strait must be considered as an additional region, already commanded by Victoria, for which tide tables are published annually.

In the first of these regions, the tidal station at Sand Heads is situated in a central and commanding position off the mouth of the Fraser river; and observations have been secured there during six complete years, which form a better basis for tide tables than at any other port on the Pacific coast of North America. The next best is San Francisco, where four years' observations have been obtained. In the second region, tidal observations are now in progress at the two ends, at Port Simpson in the north, and Queen Charlotte sound at the southern end. These observations are simultaneous and continuous day and night, being recorded on registering instruments. With two intermediate tidal stations at Bella Bella and Low Inlet, positions selected with consideration for the main end in view, the tides throughout this region can be computed. In the third region, a tide gauge has been placed at the entrance to Clayoquot sound, which will form a reference station for the western coast of Vancouver island.

The strong tidal currents which are found in so many of the passes and inlets are evidently occasioned by the rise and fall of the tide; but it should not be overlooked that their strength is chiefly due to the difference of the time of high or low water in the two directions. It is thus clear that the tide is the basis of the current; and also that correct time for the observations is an essential of the first importance. This is one of the chief difficulties on the coast, and it has been found necessary to use chronometers, or to erect special instruments, by which the time can be obtained directly from

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the sun. The time of slack water in Active Pass and Porlier Pass is now under observation. Good observations have been secured in Dodd Narrows by the surveying steamer H.M.S. *Egeria*. These are the passes which are most frequented by tugs, which have to time their trips to reach them at slack water; and their use by large steamers is on the increase.

To summarize the results aimed at, it may be said in brief that the time of the tide is the basis of all knowledge of currents and slack water; while the height of the tide is chiefly of importance in harbours for the construction of wharfs, dredging, the outfall of sewers and all such questions.

The main object of this survey, as a branch of the Marine Department, is to deal with the time of the tide; since this is the matter of chief importance to navigation, and the question of levels, even though they are indispensable for the purposes above noted, must remain secondary. In the strong tidal currents of British Columbia, it is information as to the time of slack water that is most wanted by the mariner. But the value of reliable levels, which can only be obtained from tidal observations, makes it seem right to take the additional trouble necessary to secure them. The opportunity of this season will enable the results with regard to datum planes and bench-marks to be published in a complete form, up to the stage now reached.

There is good hope now that a sound basis is laid for the tidal information required in the province, for the tide itself, the currents, and the levels which result from a continuous tidal record. No doubt there will be need in future for much detail work where channels and passages are so numerous and that there are so many local variations; but on the general plan adopted the apparent complications should disappear when the results are systematically worked out.

The St. Lawrence.—The two principal tidal stations on the St. Lawrence, Quebec and Father Point, have been maintained in continuous operation summer and winter; as well as the stations in the two entrances to the Gulf of St. Lawrence, at St. Paul island and Belle Isle strait. The tide tables for Quebec are now based on eight complete years of observation; and six years from Father Point have also been submitted to analysis. The only tide tables in North America which equal these in accuracy are those for Sandy Hook at the entrance to New York harbour.

During last season a tide gauge was placed at Cape Roche under the supervision of Mr. F. W. Cowie. Observations formerly taken here were of little value because of uncertainty in the time; and to meet this, a chronometer was used. Mr. Cowie reports that this tidal record proved of invaluable service at the time of the casualty to the *Victorian*.

The remaining principal tidal stations on the Atlantic coast have been maintained in continuous operation throughout the year; and at three of them adjustments were made to secure continued accuracy in time and height for the observations.

Tide tables.—The tide tables for the St. Lawrence and Atlantic coast are sent to all the steamship companies in sufficient number for distribution to their captains. The pilots of the St. Lawrence, the Bay of Fundy and the Pacific coast are also fully supplied with tide tables without charge. The demand from other quarters has so much increased that some of the editions printed were insufficient to meet it.

The small size or pocket editions of the tide tables for Quebec or St. John, N.B., have been especially appreciated. The number printed for 1906 is substantially increased, bringing the total of the three sets of tide tables to 5,500. The greater proportion of these are individually addressed.

Dr. Dawson's report in full relating to the British Columbia survey will be published as a supplement to this report.

Respectfully submitted.

WM. P. ANDERSON,
Chief Engineer.

December 1, 1905.

(INCLOSURE A.)

DETAILED REPORT OF THE CHIEF ENGINEER OF THE DEPARTMENT
OF MARINE AND FISHERIES ON CONSTRUCTION, ESTABLISH-
MENT AND IMPROVEMENT OF LIGHTHOUSES AND
OTHER AIDS TO NAVIGATION UP TO
NOVEMBER 30, 1905.

To the Deputy Minister,
Department of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit a detailed report on work done in the construction and establishment of aids to navigation for the year ending November 30, 1905.

This year I omit from this report work done in connection with the buoy service, which is now under the control of the Commissioner of Lighthouses.

NOVA SCOTIA.

NEW AIDS TO NAVIGATION.

Parrsboro.—A fog bell was established at this lighthouse on the north side of the Basin of Mines. The bell is supported by a framework structure on the south side of the lighthouse tower facing the channel at the entrance to Parrsboro harbour, and is operated by machinery, and will give one stroke every 6 seconds. This bell replaces the hand horn previously used.

Shulie harbour.—A lighthouse tower was erected on the headland on the eastern side of entrance to Shulie harbour, Chignecto channel, and put in operation.

The tower stands on land 37 feet above high water mark and 50 feet back from the water's edge. It is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The tower is 32 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed red dioptric light, of the seventh order, elevated 64 feet above high water mark, and visible 8 miles from all points of approach by water.

This work was done by contract by Rhodes, Curry & Co., of Amherst, N.S., the contract price being \$1,275.

Noel.—A lighthouse was established on the outer end of the government break-water at Noel, in the county of Hants, and was put in operation on December 6, 1905.

The lighthouse is a wooden tower, square in plan, with sloping sides, surmounted by a square wooden lantern. It is 27 feet high, from the deck of the pier to the top of the ventilator on the lantern. For ten feet up from the bottom it is sanded, the remainder of the building is painted white.

The light is a fixed red dioptric light, of the seventh order, elevated 27 feet above high water mark, visible 6 miles from all points of approach by water.

This work was done by day labour under the foremanship of Mr. Israel McCallum, and cost \$572.20.

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Bear river.—A lighthouse was erected on Winchester point, western side of entrance to Bear river, south side of Annapolis basin, and was put in operation on May 1, 1905.

The building stands on ground 45 feet above high water mark and 100 feet back from the water's edge. It is a wooden tower square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed red dioptric light, of the seventh order, elevated 72 feet above high water mark, and visible 9 miles from all points of approach by water.

This work was done by contract by John Roney, of Granville Ferry, N.S., the contract price being \$494.

Troops point.—A lighthouse tower was erected at this point, Annapolis river, on the north side of the river.

It is a framed wooden building, with sloping sides, surmounted by a square wooden lantern, and is 32 feet high from the base to the top of the ventilator on the lantern.

This work was performed by contract by Mr. R. W. Hardwicke, of Annapolis Royal, N.S., the contract price being \$450.

Brier island.—Keepers' dwelling houses were erected at the two light stations on this island, Brier island and Grand Passage. The buildings are framed, on concrete foundations, and shingled.

The work was carried out by contract by Mr. E. C. Bowers, of Westport, N.S., the contract price being \$3,150.

Yarmouth harbour.—A light was established on the corner dolphin, marking the turn in the channel, leading eastwardly to the long wharf in Yarmouth harbour.

The light is a fixed red light shown from an anchor lens lantern hoisted on a mast extending from the top of the dolphin. The light is elevated 20 feet above high water mark, and visible 6 miles.

Ketch harbour.—A lighthouse was erected on the western side of the entrance to Ketch harbour, county of Halifax.

The lighthouse tower stands on ground 20 feet above high water mark and 40 feet back from the water's edge. It is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed red dioptric light, elevated 46 feet above high water mark, and visible 7 miles from all points of approach.

This work was performed by day labour, and cost \$525.14; the superintendent of the work being Mr. Whebby.

Thrumcap.—A lighthouse was erected on the eastern Thrumcap islet, at the eastern entrance to Mary-Joseph harbour, and the light was put in operation on the opening of navigation this year.

The lighthouse stands on land 10 feet above high water mark and 60 feet back from the eastern extremity of the islet. It is a square wooden building, surmounted by a square wooden lantern, painted white, rising from the middle of the cottage roof. The sides of the building are painted white and the roofs red. The lighthouse is 36 feet high from its base to the ventilator on the lantern.

The light is a fixed white dioptric light of the seventh order, elevated 40 feet above high water mark, and visible 11 miles from all points of approach.

This work was done by contract by Clarence W. Anderson, of Sherbrooke, N.S., the contract price being \$1,800.

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The Budget.—A lighthouse on a cribwork foundation was established at this place, St. Marys river. It is an inclosed wooden tower, with sloping sides, surmounted by a wooden lantern, and is 23 feet high from its base to the ventilator on the lantern.

The cribwork pier is 16 feet square, with a sloping side up stream, and is 10 feet high.

This work was done by contract by Messrs. Anderson & Dickson, of Sherbrooke, N.S., and the contract price was \$975.

Fisherman harbour.—A lighthouse tower was established at this harbour. It is a framed wooden building, with sloping sides, surmounted by a square wooden lantern. It is 28 feet high from its base to the top of the ventilator on the lantern.

The work was performed by contract by Mr. John McMillan, of Isaac harbour, N.S., the contract price being \$539.

Guysboro harbour.—A combined lighthouse tower and dwelling was erected at this harbour. It is a framed wooden building on a concrete foundation, surmounted by a square wooden lantern on the apex of the roof, and is 35 feet high from the base to the top of the ventilator on the lantern.

The work was carried out by contract by Mr. P. L. Farlane, of Baddeck, N.S., the contract price being \$1,575.

Canso harbour.—Range light buildings were erected on the south side of this harbour. The two towers are inclosed wooden buildings, square in plan, with sloping sides, surmounted by square, wooden lanterns, the whole painted white.

The front tower stands on land 50 feet back from the water's edge and 20 feet above high water mark, to the south of Lanigan beach, near the south entrance to the harbour. It is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed red catoptric light, elevated 46 feet above high water mark, and visible 8 miles in the line of range.

The back tower stands on land 70 feet above high water mark, 1,256 feet N. 70° W. from the front tower. It is 44 feet high from its base to the ventilator on the lantern.

The light is a fixed red dioptric light, of the seventh order, elevated 108 feet above high water mark, and visible 10 miles from all points of approach by water.

This work was done by contract by E. F. Munro, of Westville, the contract price being \$2,590.

McMillan point.—A lighthouse tower was erected on McMillan point (Balache point), Gut of Canso, and the light put in operation on December 1, 1905.

The tower stands on the southwestern extremity of the point. It is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 32 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 53 feet above high water mark, and visible 12 miles from all points of approach by water.

This work was done by contract by Jas. McDennell, of Margaree, N.S., the contract price being \$545.

Sydney harbour.—Range light buildings were erected near Dixon point, on the southerly side of the west arm of Sydney harbour, Cape Breton island, and the lights were put in operation on the opening of navigation, 1905.

The front tower stands on the point one mile to the westward of Edward point and $\frac{1}{2}$ mile to the eastward of Dixon point, on ground 14 feet above high water mark and 165 feet back from the water's edge of the mainland inside the sand bar.

The tower is an octagonal wooden building with sloping sides, painted white. It is surmounted by a red polygonal iron lantern. The tower is 53 feet high from its base to the vane on the lantern.

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The light is a fixed white catoptric light, elevated 58 feet above high water mark, and should be visible 13 miles in, and over a small arc on each side of, the line of range.

The back tower stands $\frac{1}{2}$ mile S. 59° W. from the front tower, on land 88 feet above high water mark. It is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The tower is 38 feet high from its base to the ventilator on the lantern.

The light is a fixed white catoptric light, elevated 120 feet above high water mark, and visible 17 miles in, and over a small arc on each side of, the line of range.

The lights were erected by contract by P. L. McFarlane, of Baddeck, N.S., the contract price being \$2,124.

CHANGES AND IMPROVEMENTS AT EXISTING STATIONS.

Jeddore rock.—Two red horizontal bands have been painted on the lighthouse at this station, to make it more conspicuous as a day mark.

Scattarie.—On October 7, 1905, the fog alarm at this station was strengthened by the substitution of a diaphone, operated by compressed air, for the steam whistle now in use. The diaphone gives two blasts of 3 seconds' duration, with an interval of 10 seconds between them, in every minute.

An addition was built to the main fog alarm building, consisting of a rectangular, wooden engine room, painted white.

The small rectangular wooden building, painted white, from which the horn projects, stands 125 feet to the southeastward of the main building.

The work was done by day labour, under the direction of Mr. Sam Montgomery, and the new machinery was supplied by the Canadian Fog Signal Company, of Toronto.

Pictou island.—The light put in operation on the opening of navigation in 1905 on the west end of Pictou island is, temporarily, a revolving light, instead of a group flashing light as previously described. The light is a white revolving catoptric light, the flashes attaining their greatest brilliancy every 20 seconds.

NEW BRUNSWICK.

NEW AIDS TO NAVIGATION.

Long Eddy point.—The old fog alarm built at this station stood on a terrace half way up the cliff, in a position inconvenient of access, and where the best acoustic results could not be obtained. As the building required extensive repairs and the machinery required renewal, it was decided to entirely rebuild the station, and to place the new alarm on the shingle beach at the foot of the cliff, northwest of the old site, where it can be easily approached from the water, and where the sound should throw out better to seaward.

It is a rectangular, wooden structure, painted white, with red roof. The horn projects from its northerly face, and is elevated 16 feet above high water mark.

The fog alarm was put in operation on January 15, 1905. It consists of a diaphone, operated by air compressed by oil engines, and gives one blast of 3½ seconds' duration every minute.

The building was erected by days' labour under the superintendence of Mr. R. Summers, and cost \$3,235.

The fog alarm plant was supplied by the Canadian Fog Signal Company at a cost of \$8,400.

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St. Andrews.—A lighthouse was erected on the east end of the eastern bar of Navy island, eastern entrance to St. Andrews harbour, on the site of the old timber-work day beacon, and was put in operation on October 17, 1904.

It is a rectangular wooden building, supported on an iron pile foundation, and is surmounted by an octagonal iron lantern, painted red, rising from the middle of the cottage roof. The sides of the building are painted white, and the roof red. It is 36 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 34 feet above high water mark, and visible 7 miles from all points of approach by water. During the past winter, the pilework foundation was seriously injured by ice, and it was determined to replace it by a cribwork pier, the work on which is now being carried out.

The steelwork was provided by Messrs. Gould, Shapley & Muir, of Brantford, Ont., and cost \$2,071; while the work of erection was performed by contract by C. L. McKean, of St. Andrews, N.B., the contract price being \$2,025.

Point Lepreau.—The fog horn at this station has been replaced by a diaphone, operated by air compressed by steam, which gives one blast of $3\frac{1}{2}$ seconds' duration every 36 seconds. The building had to be enlarged to contain the new machinery; a chimney stack was built, as also a boiler room, &c.; the work being carried out by days' labour under the direction of Mr. R. Summers, at a cost of \$3,433.

Hay island.—The front light of this range, near the east end of Hay island, Miramichi bay, which was formerly a pole light, has been replaced by a light shown from a new tower erected on the site of the old pole light.

The tower is an inclosed wooden building, square in plan, with sloping sides, painted white, with roof red. It is 19 feet high from base to ventilator.

The light is a fixed white catoptric light, elevated 23 feet above high water mark, and visible 10 miles in the line of range.

This work was carried out by Messrs. J. W. and J. Anderson, at a cost of \$175.27.

Shippigan.—The lighthouse on the sand bar on the east side of the south entrance to Shippigan gully has been replaced by a new and much higher tower, the light from which will be put in operation on the opening of navigation in 1906.

It stands 300 feet south of the old lighthouse, and is an octagonal wooden building, with sloping sides, painted white, surmounted by an octagonal iron lantern painted red. The tower is 51 feet high from its base to the top of the ventilator on the lantern, and stands on a square wooden cribwork pier 6 feet high.

The light will be a fixed white dioptric light, of the fourth order, elevated 53 feet above high water mark, and visible 12 miles from all points of approach.

This work was done by contract by Honoré Duguay, of Caraquet, the contract price being \$1,500.

CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

Gannet rock.—The lighthouse tower at this station has been increased in height, a new iron lantern provided, and new illuminating apparatus installed.

The octagonal wooden tower with sloping sides, painted in black and white vertical stripes now stands on an octagonal concrete wall 12 feet high. It is surmounted by a circular iron lantern painted red, and is 90 feet in height from the base (including concrete wall) to vane on the lantern.

The new light is a flashing white light, showing two bright flashes of .562 second duration each, separated by an eclipse of 1.94 seconds, and followed by an eclipse of 11.9 seconds duration, the total period being 14.964 seconds. It is elevated 90 feet above high water mark, and is visible 14 miles from all points of approach. The

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illuminating apparatus is dioptric of the second order, and the illuminant petroleum vapour burned under an incandescent mantle.

This work was carried out by days' labour, under the superintendence of Mr. John Kelly, and expenses amounting to \$8,062.40 were incurred.

Machias Seal island.—Extensive repairs are being made at this station to the eastern lighthouse tower. New sills, corner posts, sheathing and shingles were supplied, a new concrete foundation put in, and a stone drain 260 feet in length has been built.

The dwelling house has been reshingled and a wooden box sewer, 160 feet long, built from the dwelling.

The work is being performed by days' work, under the direction of Mr. Kelly, and expenses to the amount of \$2,442.28 have been incurred.

Big Duck island.—A new set of tubes were placed in the boiler; the steam cylinder was repaired, and a new steam boiler substituted for the old one. The work is being carried out under the direction of Mr. Kelly.

Head harbour.—The fog bell at this station, East Quoddy head, north point of Campobello island, previously rung by hand, was, on December 8, 1904, operated by machinery, and gives two strokes in quick succession every thirty seconds. It is located 80 feet northward from the lighthouse, and is a square wooden pyramidal structure painted white.

South-west Wolf.—A quick flashing white light, giving one bright flash every five seconds, was, on or about September 1, this year, substituted for the revolving white catoptric light heretofore shown from this lighthouse. The illuminating apparatus is dioptric of the third order, and the illuminant is petroleum vapour burned under an incandescent mantle.

Drews Head.—The light shown from this lighthouse, Beaver harbour, was improved by substituting a seventh order lens and lamp for the reflectors and lamps heretofore used. The light is a fixed white light, and visible 10 miles. The illuminant is petroleum vapour burned under an incandescent mantle.

Partridge island.—An engine house for the accommodation of the diaphone plant was erected on the east side of boiler house. The building is of brick, 27 feet x 32 feet, on concrete foundation, with a concrete floor and slate roof. The work was carried out by days' labour, under the superintendence of Mr. Kelly.

St. John harbour.—The fog bell maintained on the south end of the beacon lighthouse pier on point of bar, west side of channel, St. John harbour, was moved a distance of about 60 feet from the south-west to the north-east of the lighthouse on the pier.

The bell is operated by machinery, and gives one stroke every six seconds.

Cox point.—The light shown from this lighthouse, Grand lake, St. John river, was improved by substituting a seventh order lens and lamp for the reflectors and lamps heretofore used. The light is a fixed white light and visible 9 miles.

Robertson point.—The light shown from this lighthouse, Grand lake, St. John river, was improved by substituting a seventh order lens and lamp for the reflectors and lamps heretofore used. The light is a fixed white light, and visible 10 miles.

Fanjoy point.—The light shown from this lighthouse, Grand lake, St. John river, was improved by substituting a seventh order lens and lamp for the reflectors and lamps heretofore used. The light is a fixed white light, and visible 9 miles.

Hatfield point.—The fixed white light shown from a lantern hoisted on a white mast at this station, Belleisle bay, St. John river, was, on the opening of navigation

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this year, improved by substituting an anchor lens lantern of the seventh order for the pressed lens lantern heretofore used.

Quaco.—Considerable repairs were made to the machinery at this fog alarm station, amounting to \$810, which were carried out under the direction of Mr. Kelly.

Richibucto.—The channel through the bar across the entrance to this harbour having been shifted by the winter gales and action of the ice, the bar range lights were changed to mark the new channel.

The front mast stands on the north side of the south beach, 115 feet back from the water's edge, 616 feet S. 54° E. from the middle of the old front range lighthouse tower, and 6280 feet S. $39\frac{1}{2}^{\circ}$ E. from the outer end of the breakwater on the north beach.

The fixed white light, elevated 30 feet above high water mark, is shown from an anchor lens lantern hoisted on a mast, and should be visible 10 miles.

The back light is shown from an anchor lens lantern hoisted on a mast 40 feet high, and is distant 230 feet S. $50\frac{1}{2}^{\circ}$ W. from the front light. The fixed white light is elevated 47 feet above high water mark and visible 12 miles.

Goose lake.—An extensive protection breakwater is now in course of erection, on the sea side of this light station, to retain the sea wall that surrounds the premises.

The work is being carried out under the direction of Mr. Kelly.

Belloni point.—The light shown from this lighthouse, east side of entrance to Bathurst harbour, Chaleur bay, was improved by substituting a seventh order lens for the pressed lens heretofore used. The light is a fixed white light and visible 10 miles.

Dalhousie island.—The light maintained on the eastern end of Douglas or Dalhousie island, Dalhousie harbour, Chaleur bay, was permanently discontinued, and was replaced on the opening of navigation, 1905, by a light shown from a new lighthouse erected on the north point of the island, 250 feet N. 27° W. from the old lighthouse, on land 16 feet above high water mark and 80 feet back from the water's edge. It is an octagonal wooden building, with sloping sides, painted white, surmounted by an octagonal iron lantern painted red. It is 53 feet high from its base to the ventilator on the lantern.

The light is a flashing white dioptric light, of the fifth order, giving one bright flash every $7\frac{1}{2}$ seconds. It is elevated 63 feet above high water mark, and visible 13 miles from all points of approach by water.

The work was done under contract by Mr. Patrick B. Troy, of Dalhousie, and cost \$1,642.

Campbellton.—The front range lighthouse at this station was moved 25 feet eastwardly in the same alignment, and is now distant 1,205 feet N. $83^{\circ} 30'$ E. from the back range lighthouse.

PRINCE EDWARD ISLAND.

NEW AID TO NAVIGATION.

Cape Tryon.—A lighthouse was erected on Cape Tryon, north coast of Prince Edward Island, and was put in operation on the opening of navigation in 1905.

The lighthouse stands on ground 75 feet above high water mark and 50 feet back from the water's edge, on the extremity of the cape. It is a rectangular wooden building, painted white, with a red, octagonal iron lantern standing on the north end of the roof, and is 37 feet high from its base to the ventilator on the lantern.

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The light, elevated 106 feet above high water mark, is temporarily a fixed white seventh order dioptric light, and visible 16 miles from all points of approach by water.

This work was done by contract by B. D. Huntley, of Vernon River Bridge, P.E.I., the contract price being \$1,590.

ONTARIO.

NEW AIDS TO NAVIGATION.

Trenton.—Range lights have been established at Trenton, Bay of Quinte, replacing the private range lights heretofore maintained in this locality.

The lights are fixed red lights, shown from anchor lens lanterns hoisted on white masts, and should be visible 2 miles. The masts have white diamond-shaped targets at their tops and small white sheds at their bases.

The front mast stands on the west side of the harbour, near the shore of the bay, and about $\frac{1}{2}$ mile southward of the west end of Trent river bridge. The mast is 20 feet high and the light is elevated 20 feet above the level of the lake.

The back mast stands 520 feet N. $70\frac{1}{2}^{\circ}$ W. from the front mast, and is 30 feet high. The light is elevated 42 feet above the level of the lake.

The material used in the construction of these beacons cost \$379.67; the masts were constructed in the department's shops at Prescott, Ont.

East gap, Toronto.—A fog alarm was established at the East gap, Toronto harbour, and was put in operation on the opening of navigation in 1905.

The fog alarm consists of a diaphone, operated by compressed air, which gives one blast of seven seconds' duration every 45 seconds.

The fog alarm building stands on the beach, immediately east of the eastern pier, $\frac{1}{10}$ mile southeastward from the back range light. It is a square, wooden building, painted white, with a green roof. The horn projects from a dormer in the southeast side of the building.

This work was carried out by Mr. Jesse Tulloch, of Toronto, at a cost of \$1,808.36.

The fog alarm plant was supplied by the Canadian Fog Signal Company, at a cost of \$9,882.

Niagara-on-the-Lake.—A fog alarm was established at the mouth of Niagara river, and was put in operation on the opening of navigation in this year.

The fog alarm building stands on the edge of the river, in front of the turntable of the Michigan Central Railway, and about $1\frac{1}{2}$ cables below Niagara front range lighthouse. It is a rectangular wooden structure on a cribwork foundation. The sides of the building are painted white and the roof red. The trumpet is elevated 10 feet above the level of the lake.

The fog alarm consists of a diaphone, operated by air compressed by oil engines, and gives one blast of 5 seconds' duration every two minutes.

This work was performed by days' labour, under the direction of Mr. J. F. Murphy, and cost \$5,845.62.

Goderich.—In consequence of the building of a breakwater by the Department of Public Works, about 1,500 feet outside the piers forming the sides of the channel into Goderich, it was found necessary to provide an additional light. This new back light stands on the beach, 1,400 feet S. $87\frac{1}{2}^{\circ}$ E. from the front range lighthouse on the north pier, and 254 feet to the northward of the north pier. It was put in operation on 5th September, 1905.

The light is a fixed red light shown from a lantern hoisted on a mast, and is elevated 68 feet above the level of the lake.

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The exhibition of the green light on the north pier, which was temporarily discontinued while the new red light on the beach was being installed, was resumed on the above-mentioned date. The red lights in one lead into the harbour clear of the new breakwater.

Southampton.—A steam fog whistle was established on the town waterworks building at Southampton, and will hereafter be maintained by the municipality. The whistle gives two blasts of 5 seconds' duration each every minute.

The waterworks building is situated on the lake shore, about 100 feet back from the water's edge, $\frac{1}{4}$ mile south-westward from the south side of the mouth of Saugeen river. It is a rectangular yellowish brick building with a flat roof and an iron smoke-stack. The whistle rises from the roof of the building, and is 28 feet above the level of the lake.

Wilson channel.—Range lighthouses were erected at Wilson channel, St. Joseph channel, in the district of Algoma, and the lights put in operation on 1st September, 1905.

The front tower stands on land 35 feet above the level of the water, on the main shore, on the site of the old high beacon, which has been taken down. It is an inclosed wooden building, square in plan, with sloping sides, surmounted by an octagonal wooden lantern, the whole painted white. It is 28 feet high from its base to the top of the ventilator on the lantern.

The light, elevated 58 feet above the level of the water, will be a fixed white dioptric light, of the seventh order, and should be visible 3 miles from all points of approach by water.

The back tower stands on land 86 feet above the level of the water, 730 feet N. 57° E. from the front tower, and is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 28 feet high from its base to the top of the ventilator on the lantern.

The light, elevated 109 feet above the level of the water, will be a fixed white catoptric light, and visible 3 miles in the line of range.

This work was done by contract, by Wm. Fryer, of Collingwood, Ont., the contract price being \$1,348.

Cape Croker.—A new fog alarm building was erected at this lightstation, Georgian bay, and put in operation on July 20, 1905. The building stands to the southward of the lighthouse and is 40 feet back from the water's edge. It is a rectangular wooden building, painted white, with red roof.

The new fog alarm consists of a diaphone, operated by compressed air, which, during thick or foggy weather, will give one blast of five seconds' duration every minute. The horn, elevated 30 feet above the level of the lake, projects from the north-east side of the building.

The work was erected under the direction of Mr. W. H. Brunel. The fog alarm plant was provided by the Canadian Fog Signal Company, and cost \$10,001.85: while the buildings cost \$4,225.56.

Blind river.—In May, 1905, the undersigned visited Blind river for the purpose of inspecting conditions at that port and arranging for the establishment of such new aids to navigation as the changed conditions require.

Since range lights were established here, in 1900, he found developments that made changes necessary; a government wharf had been built at the west end of the village, and Messrs. Eddy Bros. & Co. had established a saw-mill with large wharves 600 feet west of the government wharf, and had dredged a channel into these wharves from deep water. Leading from this channel to the head of the government wharf the Dominion government had dredged another channel, and as most of the steamers calling at Blind river used these new channels, it was found necessary to rearrange the aids to navigation as follows:—

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(1) The private light heretofore maintained by Messrs. Dolsen and McEwan, successors of the Michigan Land and Lumber Company, on the outer end of the east wharf at Blind river, had, he found, been discontinued when the property changed owners.

(2) The range lights, established in 1900, leading into the harbour, east of Susanne island, were, on the opening of navigation improved, but when the new range lights hereinafter described were established it was found unnecessary to continue their maintenance, and they have been discontinued.

(3) A range of lights was established to mark the axis of the channel leading to the Eddy wharves. The lights shown are fixed white electric lights, visible 11 miles.

The front light is on a pole on the elevated tramway west of the Eddy west wharf, and is elevated 35 feet above the level of the lake.

The back light stands 295 feet N. 7° E. from the front light, and is placed on the west end of the ridge of the roof of the firm's office building. It is elevated 50 feet above the level of the lake.

Whenever the electric power plant is inoperative fixed white oil lights will be temporarily substituted for the electric lights.

(4) A range of lights was established to mark the axis of the dredged cut leading to the head of the government wharf. The front light is a fixed red light, shown from an anchor lens lantern on a shelf on the southeast corner of the drab, rectangular wooden storehouse on the government wharf. The light is elevated 25 feet above the level of the lake, and visible 6 miles from all points of approach by water.

The back light stands on the shore, 1,550 feet N. 35° E. from the front light, and on the west side of the mouth of Blind river. The light is a fixed red light, shown from an anchor lens lantern hoisted on a pole. It is elevated 40 feet above the level of the lake, and visible 7 miles from all points of approach by water.

(5) The sides of the channel leading to the Eddy wharves are marked by spar buoys maintained by Eddy Bros. & Company. No particulars respecting these have been obtained.

(6) The sides of the channel leading to the government wharf are marked by 4 spar buoys; two red ones on the starboard and 2 black ones on the port hand entering.

Welcome islands.—A new lighthouse tower and keeper's dwelling are being erected on the most northeasterly island; an oil house and boat house also built.

The work is being performed by days' labour, under the direction of Mr. Brunel.

Rainy river.—The range light towers off the southern end of Sable island, at the mouth of Rainy river, Lake of the Woods, were replaced by inclosed buildings on more permanent piers, erected on the sites of the old range lighthouses.

The front tower stands on a square cribwork pier built in 10 feet water and distant 400 feet from the southwest extreme of Sable island. The tower is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 27 feet high from the deck of the pier to the top of the lantern.

The light is a fixed white dioptric light of the seventh order, elevated 27 feet above the level of the lake, and should be visible 10 miles from all points of approach by water.

The back tower stands on a square cribwork pier built in 10 feet water and distant 1,194 feet S. 26° E. from the front tower. It is a wooden building, square in plan, with sloping sides, painted white. The height from the deck of the pier to the top of the tower is 36 feet. The light is a fixed red catoptric light elevated 37 feet above the level of the lake and visible 7 miles in the line of range.

These towers were erected by contract by Messrs. Stephen & McKinnon, of Keenora, the contract price being \$1,200.

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Lake Cecebe.—A lighthouse on a cribwork pier was erected on a shoal, about 1½ miles from Magnetawan village, Lake Cecebe. The tower is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, and is 23 feet in height from its base to the top of the ventilator on the lantern.

This work was done by days' labour, under the superintendence of Capt. J. Mortimore, of Burk's Falls, Ont.

Cox reef.—A combined lighthouse tower and keepers dwelling, was established on Cox reef, Lake Winnipeg.

It is a wooden building, with kitchen annex, square in plan, surmounted by a square wooden lantern on the deck of the roof, and is 41 feet high from its base to the ventilator on the lantern roof.

This work was carried out by contract by Mr. John W. Scott, of Selkirk, Manitoba, the contract price being \$4,100.

CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

Graham's wharf.—Repairs were executed at this station, and a new oil shed was built; the work being done under the direction of Mr. Pilon.

Britannia.—This lighthouse, on Lake Deschênes, was carried away by freshet in the spring of 1904. On the opening of navigation in 1905, it was replaced by a light shown from a wooden lantern surmounting the pavilion on the outer end of the Ottawa Electric Railway Company's pier, at a point distant 1,047 feet N. 22° E. from the site of the old lighthouse. The outer end of the pier consists of a T 60 feet long by 23 feet wide on which stands the pavilion, consisting of wooden pillars supporting a flat roof. The wooden lantern, octagonal in plan, the base being painted brown and the upper part in shades of green, stands on the middle of this roof. The height from the deck of the pier to the ventilator on the lantern is 25 feet.

The light, elevated 26 feet above the summer level of the river, is an occulting red light, visible for 5 seconds and eclipsed for 2½ seconds alternately, and visible 6 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order, and the illuminant electricity.

This work was carried out at a cost of \$325.75, under the direction of Mr. F. J. Alexander.

Jackstraw shoal.—The light here has been changed from fixed white to fixed red.

Nine Mile point.—The steam fog horn heretofore maintained at this station, on the west extremity of Simcoe island, was permanently discontinued on the opening of navigation, 1905, and replaced by a diaphone, operated by compressed air, which gives one blast of seven seconds' duration every minute.

An addition, from which the trumpet projects, was built to the south-west side of the fog alarm building.

Belleville.—Repairs were executed to the pier and lighthouse at this station; the work being done by days' labour, under the direction of Mr. W. K. Morris, at a cost of \$107.57.

Burlington bay.—A front range lighthouse was built near the outer end of the south pier, Burlington bay, on the site of the old lighthouse.

The structure consists of an open frame steel skeleton tower, square in plan, with sloping sides, painted red, surmounted by a square iron lantern, painted red. The tower is 36 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 39 feet above the level of the lake, and visible 11 miles from all points of approach by water.

This work was done by days' labour, under the superintendence of Mr. W. K. Morris, at a cost of \$523.56.

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The steel skeleton tower was supplied by Messrs. Gould, Shapley & Muir, of Brantford, Ont., and cost \$356.

Gravenhurst narrows.—A lighthouse tower was established at this place. It is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern. The work was done by contract by Mr. George Brown, of Bracebridge, Ont., the contract price being \$650.

Port Dover.—A front range lighthouse was built near the outer end of the west pier at Port Dover, on the site of the old lighthouse.

The tower is an inclosed wooden building, square in plan, with sloping sides, painted white, surmounted by a square iron lantern, painted red. It is 35 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 34 feet above the level of the lake, and visible 11 miles from all points of approach by water. The illuminant is petroleum vapour burned under an incandescent mantle.

This work was done by days' labour under the superintendence of Mr. M. J. Egan, at a cost of \$1,155.87.

Long point.—The following improvements were executed at this station :—

A new keeper's house, coal shed, barn and boathouse were erected and a plank walk, 1,435 feet in length, raised $2\frac{1}{2}$ feet above the ground, on cedar posts and with hand railing.

Air tanks were placed on concrete foundations, and the new boilers and machinery placed in position.

This work was done under the direction of Mr. W. H. Brunel, and cost \$3,452.23.

Rondeau harbour.—A front range lighthouse was built on the outer end of the east pier, Rondeau harbour, on the site of the old lighthouse.

The structure consists of an open frame steel skeleton tower, square in plan, with sloping sides, painted red, surmounted by a square iron lantern painted red. The tower is 36 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 36 feet above the level of the lake, and visible 11 miles from all points of approach by water.

This work was done by days' labour under the superintendence of Mr. W. K. Morris, at a cost of \$424.49.

The steel tower was supplied by Messrs. Gould, Shapley & Muir, of Brantford, and cost \$356.

Colchester reef.—Extensive repairs were made to the protection work at this light station: the old wooden cribs being replaced by a substantial steel and concrete protection. The old wooden bell tower was taken down and replaced by a steel one.

The work was performed by days' labour, under the direction of Mr. Fred Forster, at a cost of \$4,955.24.

Elliott point.—Two steel skeleton towers 50 and 70 feet high, respectively, were on July 26, 1905, erected on Elliott point to mark the centre line of the channel to be used, which is 300 feet wide. The range targets now on Elliott point were removed and the buoys and floating lights moved to the westward 300 feet, marking the side lines of the channel.

Each of the Elliott point fixed red reflector lights was moved about 500 feet south-westerly and re-established in the above mentioned steel towers on the eastern side of Detroit river.

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Thames river.—Repairs were executed to the pier and lighthouse at this station, Lake St. Claire, and were completed on July 12, 1905.

The work was done by days' labour under the direction of Mr. W. K. Morris.

Cove island.—The steam fog horn heretofore maintained on the north point of Cove island, entrance to Georgian bay, was replaced by a diaphone, operated by compressed air, which gives one blast of five seconds' duration every two minutes.

A wooden addition 22 feet by 28 feet has been built to the fog alarm building.

Repairs were made to the fog alarm building at this station.

The building was altered to receive the new boilers; a new coal shed was erected, and the old buildings were repainted. Air tanks were placed on concrete foundations, and the fog alarm machinery installed.

The work was done under the direction of Mr. W. H. Brunel, at a cost amounting to \$1,784.82, and the machinery supplied by the Canadian Fog Signal Co. for \$9,882.

Duck island.—The following works were carried out at this fog alarm station.

Air tanks were placed on concrete foundations, and the machinery placed in position.

The buildings were altered to receive the new boilers and the inside of the boiler room sheeted. The coal shed was also enlarged.

The work was done under the direction of Mr. W. H. Brunel, and cost \$1,033.21, the machinery cost \$882, and was supplied by the Canadian Fog Signal Co.

Tobermory.—A new dwelling for the lightkeeper was erected at this station. It is a wooden frame building, on masonry foundations; the main building is 16 feet 9 inches by 32 feet with a shed attached.

The work was performed by days' labour under direction of Mr. W. H. Brunel, the total cost being \$1,265.

Western islands.—The light shown from the lighthouse on Double Top rock, Western islands, Georgian bay was, on or about November 1, 1905, changed from a fixed and flashing white light to a white light occulted at short intervals. The illuminating apparatus is dioptric of the fourth order, and the illuminant acetylene.

Red rock.—The light shown from Red rock lighthouse, in the approach to Parry sound, was, on or about November 1, 1905, changed from a fixed white catoptric light to a white light occulted at short intervals. The illuminating apparatus is dioptric of the fourth order, and the illuminant acetylene.

North Sister rock.—The lighthouse which formerly stood on this rock was moved to West Sister rock, St. Joseph channel.

The lighthouse stands on a square cribwork pier, and the light shown is a fixed white dioptric light, elevated 35 feet above the level of the water, and visible 11 miles from all points of approach by water. The work was done by days' labour under the direction of Mr. M. J. Egan, and cost \$937.66.

Thunder cape.—Repairs were executed at this fog alarm station. The buildings were changed to suit the arrangement of a new fog alarm plant; a concrete floor was laid, and the inside properly sheathed.

The work was done by days' labour, under the direction of Mr. Brunel, and cost \$1,925.

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AIDS TO NAVIGATION DISCONTINUED.

Gibraltar point.—In consequence of the establishment of a fog alarm at East gap, Toronto harbour, the Gibraltar point fog alarm has been permanently discontinued.

Blind river.—In consequence of the establishment of range lights marking the west entrance to Blind river, the range lights heretofore maintained by Messrs. Dobson and McEwen, leading in from the eastward, have been discontinued, as detailed elsewhere herein. When the undersigned visited the place last spring to rearrange the lights he found that the private light previously maintained by the Michigan Land and Lumber Co. on the outer end of their wharf had been abandoned by the new owners.

QUEBEC.

NEW AIDS TO NAVIGATION.

Port Daniel.—In consequence of the extension of the government wharf at this place, it became necessary to remove the lighthouse to the outer end of the new portion; the building was, therefore, moved out a distance of 100 feet by the wharfinger, at a cost of \$25.

A hand fog horn was established at this station, Chaleur bay. It is used to answer signals from steamers in the vicinity of the station in thick weather.

Belle Isle.—A lighthouse was erected on the northeast point of Belle Isle, and put in operation on the opening of navigation in 1905.

The lighthouse stands on land 90 feet above high water mark and 210 feet back from the water's edge. It is a cylindrical iron tower, surmounted by a polygonal iron lantern, the whole painted red. It is 55 feet high from its base to the ventilator on the lantern.

The light is a white light, giving one bright flash of $\frac{1}{2}$ second duration every 11 seconds; it is elevated 137 feet above high water mark, and visible 17 miles from all points of approach by water. The illuminating apparatus is dioptric of the second order, and the illuminant will be petroleum vapour burned under an incandescent mantle.

A new fog alarm is in course of construction at this station.

This work is being carried out by days' labour, under the foremanship of Mr. Audibert, and the amount expended since the commencement of the present fiscal year is \$13,208.94.

Gaspé coast.—Range mast lights were established at six points on the Gaspé coast, as follows: Griffin cove, Great Fox river, Chlorydorme, Grand Vallée, Mont Louis and Ste. Anne des Monts.

In each case the front mast is located close to the shore, and the back one on higher ground behind it.

The masts have white diamond slatted beacons, and show fixed red lights from the centres of the beacons at night.

Red island lightship.—This lightship was fitted with a submarine bell which will strike the lightship's number '3' every 14 seconds.

Vessels equipped with receiving apparatus should hear the submarine bell at five miles and determine its bearing within a quarter of a point. Vessels not so equipped should receive a warning signal at from one to two miles, depending on the draught and the construction of the ship. This should be audible to an observer below the water line and close to the hull of the vessel.

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Saguenay river.—The gas buoy marking Prince shoal, at the entrance to the Saguenay river, River St. Lawrence, was discontinued and replaced by an iron lightship (formerly stationed at the Lower Traverse), on the opening of navigation in 1905, moored in the same position, in 4 fathoms water on the south edge of the more westerly of the two patches.

The illuminating apparatus is dioptric and consists of three fixed lights, arranged as follows: A white light at an elevation of 31 feet above the water at the mainmast head, a white light at an elevation of 25 feet above the water on the foremast head, and a red light on a stay between the two masts at an elevation of 49 feet above the water. These lights should be visible 9 miles.

The hull of the vessel is painted red, with the words 'Prince shoal' and the number of the vessel 'No. 7' in white letters on each top side. A red ball is hoisted on the mainmast in daytime.

During the continuance of thick weather a steam fog whistle on the ship will give blasts of 12 seconds' duration, with intervals of 48 seconds between the blasts.

The lightship has been fitted with a submarine bell which will strike the lightship's number '7' every 22 seconds as follows: Seven strokes at intervals of two seconds, followed by an interval of ten seconds.

White island lightship.—This lightship was fitted with a submarine bell which strikes the lightship's number '5' every 18 seconds, as follows: Five strokes at intervals of two seconds, followed by an interval of ten seconds.

Baie St. Paul.—A light was established on the apex of the freight shed on the outer end of the government wharf at Cap au Corbeau, at the east extremity of Baie St. Paul, and was put in operation on August 12, 1905.

The light is a fixed white dioptric light of the seventh order, elevated 31 feet above high water mark, and visible 10 miles from all points of approach by water.

The light is shown from a square wooden lantern on the apex of the hipped roof of the freight shed, which stands 15 feet back from the face of the wharf. The building is painted in shades of drab.

The cost of this work was \$89.24; and the light on the freight shed was erected by Messrs. Thos. Desbiene and E. Condé.

Beaujeu bank.—A cribwork foundation for a lighthouse was, on June 3, 1905, sunk in the south channel of the River St. Lawrence, north-west of the west narrows of Beaujeu channel.

The lower part of the structure is 50 feet square, of timber cribwork, 13 feet high, and is surmounted by a concrete beacon reinforced with steel, square in plan, with sloping sides, surrounding a cylindrical steel gasholder, painted red, rising out of it. The gasholder is surmounted by a red pyramidal steel frame carrying a lantern. The light was put in operation on October 24, 1905, and is a white light, occulted at short intervals; it is elevated 27 feet above high water mark, and visible 10 miles from all points of approach. The light is unwatched.

The work was done under contract by Messrs. Griffin & Desnoyers, of Quebec, the contract price being \$25,000.

River St. Lawrence ship channel.—The following work was carried out in the River St. Lawrence ship channel this year, consisting of the establishment of permanent lights to mark various ranges in the channel, which have been unmarked hitherto, or marked by lights which had to be removed in winter.

All the work was carried out under the superintendence of Mr. U. P. Boucher, agent and engineer of the department at Montreal; with Mr. J. Henri Dubuc as resident engineer at Sorel, and Mr. Ernest Roy as general superintendent of construction.

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The work at the different stations was all carried out by the same staff and plant which were shifted from time to time to suit local circumstances, so that no effort was made to keep the cost of individual constructions separate. The vote for the purpose was a special one, amounting to \$160,000, and of this \$150,000 has been expended to date, which amount has also paid for the construction of the Beaujeu Bank beacon, below Quebec, which is described in another paragraph.

Becancour.—Range lighthouses were erected on the south side of the River St. Lawrence, near Becancour, to mark the axis of the ship channel, which has been enlarged to 30 feet deep and 450 feet wide, from the lower end of Ile Bigot through Becancour course to Becancour bend; and the old pole lights and beacon which marked the axis of this channel before it was widened, were removed.

The lights shown are fixed white catoptric lights visible 6 miles in the line of range.

The front structure stands on the flats in the River St. Lawrence, off the westerly mouth of Becancour river. It consists of a concrete pier, square in plan, with sloping sides, surmounted by a white hexagonal wooden lantern. The structure is 34 feet in height from the base of the pier to the top of the ventilator on the lantern.

The back tower stands on the mainland, 6,700 feet S. $65^{\circ} 37'$ W. from the front one. It consists of an open frame steel skeleton tower, square in plan, with sloping sides, painted brown, surmounted by an inclosed wooden watchroom and a square wooden lantern. The side of the framework facing the channel is rendered more conspicuous as a day beacon by being covered half way down with wooden slatwork. The lantern roof is painted red, the remainder of the lantern, the watchroom, and the slats, are painted white. The height of the tower from its base to the ventilator on the lantern is 63 feet. The tower stands on a concrete pier 10 feet high, square in plan, with sloping sides.

Champlain village range.—The range light towers at this station are being shifted to a more suitable position. The concrete foundation for the front light has been finished, and the four concrete blocks and the skeleton portion of the light has been erected.

The work is being carried out under the supervision of the Montreal agency of the department.

Point du Lac.—The cribwork foundation for this pier, which is 40 feet square and 21 feet high, was on June 17, 1905, sunk in 21 feet at low water near No. 3 lightship.

The middle of the pier is 168 feet N. 40° E. from the lightship, and 9,640 feet S. 71° W. from Pointe du Lac lighthouse.

The concrete top, extending 25 feet above the level of ordinary low water, is the full size of the cribwork foundation at the bottom, and battered in to 26 feet square at top. It is intended to support the lighthouse from which the front light of a range to mark the axis of the ship channel dredged through Lake St. Peter from Nicolet traverse to the bend at Yamachiche gas buoy (No. 57 L) will be shown, and will mark the axis of the improved channel, which has been increased from 300 to 450 feet in width.

Louiseville upper range back light.—The cribwork foundation for this pier, which is 40 feet square and 9 feet 6 inches high, was sunk, on June 29, 1905, in 7 feet at low water, near No. 2 lightship, the middle of the pier being 2,000 feet N. 57° E. from the lightship.

The concrete top, extending 25 feet above the level of ordinary low water, is the full size of the cribwork foundation at the bottom, and battered in to 26 feet square at the top. It is intended to support the lighthouse from which the back light of a range to mark the axis of the ship channel dredged through Lake St. Peter from No. 2 lightship to No. 1 lightship will be shown.

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Louiseville lower range back light.—The cribwork foundation for this pier, which is 40 feet square and 9 feet 6 inches high, was sunk, on July 19, 1905, in 7 feet at low water, near No. 2 lightship, the middle of the pier being 2,050 feet. S. 85° W., from the lightship.

The concrete top, extending 25 feet above the level of ordinary low water, is the full size of the cribwork foundation at the bottom, and battered in to 26 feet square at the top. It is intended to support the lighthouse from which the back light of a range to mark the axis of the ship channel dredged through Lake St. Peter from No. 2 lightship to Yamachiche bend gas buoy No. 57 L will be shown.

Louiseville front range light.—The cribwork foundation for this pier, which is 50 feet x 40 feet, and 28 feet high, was sunk, on August 24, 1905, in 30 feet at low water, in Louiseville bend, 75 feet northerly from the position now occupied by lightship No. 2.

The middle of the pier is 2,000 feet N. $84\frac{1}{2}^{\circ}$ E. from the middle of the upper back pier, and 2,000 feet S. $58\frac{1}{2}^{\circ}$ W. from the middle of the lower back pier.

The concrete top, extending 25 feet above the level of ordinary low water is the full size of the cribwork foundation at the bottom, and battered in to 31 feet x 22 feet at the top. It is intended to support the lighthouse from which the front light common to two ranges, one above and one below it, will be shown.

The steelwork for the above-mentioned lighthouses has been constructed at Sorel, and will be placed on the piers next season.

Ile de Grace.—Two concrete piers to support range lights were built at Ile de Grace, this autumn; and the towers are now in course of erection.

The front pier is 14 feet in height, 27 feet square at its base, and is battered in to 15 feet square at the top.

The back pier is 18 feet in height, 28 feet square at its base, is battered in to 24 feet square at its top and has a sloping nose up stream.

Ste. Anne de Sorel.—A concrete pier, to support the front tower of a range, was built at Ste. Anne de Sorel, last fall, and the tower is now in course of construction.

The pier is 14 feet in height, 27 feet square at its base, and is battered in to 15 feet square at its top.

Ire Ste. Thérèse.—Two new range light buildings were erected on the north side of the ship channel of the River St. Lawrence, off the upper end of Ile Ste. Thérèse, to mark the axis of the widened Pointe aux Trembles channel from Ile aux Vaches traverse to Longue Pointe curve.

These two new buildings replace the old front range light on Ile aux Vaches, and the old back range light on the south shore of Ile Ste. Thérèse, which marked this course.

The new range lights were put in operation on November 15, 1904, and the old ones discontinued on the same date, and taken down.

The new front building stands on the south shore of Ile aux Vaches, 75 feet C. $53^{\circ} 30'$ E. from the old one. The foundation consists of a concrete pier 18 feet high, built with a pointed nose upstream, surmounted by an octagonal wooden lantern, painted white, and 17 feet high from its base to the ventilator on the lantern.

The light is fixed white catoptric, elevated 32 feet above the summer level of the river, and visible 4 miles in the line of range.

The back tower stands off the south shore of Ile Ste. Thérèse, 75 feet S. $53^{\circ} 30'$ E., from the site of the old tower, and 5,030 feet N. $36^{\circ} 30'$ E. from the front light. It is a square building with sloping sides, consisting of an open steel framework with wooden slats on the upper portion of the side facing the alignment, surmounted by an inclosed wooden watchroom and a square wooden lantern. The steel frame is painted red and the woodwork, including the slats, white.

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The building is 71 feet high from the pier to the ventilator on the lantern, and stands upon a concrete pier rising 20 feet above the summer level of the river.

The light, which is similar to that shown from the front tower, is elevated 84 feet above the water.

The buildings were erected by days' labour under the superintendence of Mr. Ernest Roy, at a cost of \$8,035.21.

The back steel tower was supplied by The Goold, Shapley & Muir Co., of Brantford, Ont., and cost \$610.

Champlain.—The front day beacon of the pair above the village of Champlain, which in one indicated the old axis of the ship channel from the bend at Citrouille point to the bend above Champlain, has been taken down and replaced by an inclosed wooden lighthouse tower.

The tower is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern. It is painted white with the roof of the lantern red, and the temporary light heretofore shown from the beacon will be shown from this tower.

A lighthouse tower is in course of erection 75 feet south of the high beacon of the above range, and is a steel skeleton tower.

This work was erected by day's labour and cost \$758.47.

Cap Madeleine.—Range lighthouses were erected at Cap Madeleine village, to mark the axis of the 30-foot ship channel through Becancour traverse; they replace the lights temporarily shown from lanterns hoisted on the old day beacons which have been taken down. The lights shown are fixed white catoptric lights, visible 4 miles in the line of range.

The front lighthouse stands on the bank of the river, about $\frac{1}{3}$ mile below the village church. It consists of a square wooden building surmounted by an octagonal wooden lantern, the whole painted white. The building is 23 feet high from its base to the top of the ventilator on the lantern.

The back tower stands 2,250 feet N. 87° W. from the front one.

It consists of an open frame steel skeleton tower, square in plan, with sloping sides, painted brown, surmounted by an inclosed wooden watchroom and a square wooden lantern. The side of the framework facing the channel is rendered more conspicuous as a day beacon by being covered half way down with wooden slatwork. The lantern roof is painted red, the remainder of the lantern, the watchroom, and the slats, are painted white. The height of the tower from its base to the ventilator on the lantern is 63 feet.

The work was done by days' labour and cost \$1,996.

CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

Macquereau point.—The lighthouse at this station was destroyed by fire on August 30, 1905. A temporary light was immediately shown from a lantern hoisted on a mast, and a contract has been let for the erection of a new and improved lighthouse and keeper's dwelling. Particulars respecting the work will be given in next year's report.

Sandy beach, Gaspé.—The light shown from this lighthouse, entrance to Gaspé basin, was changed from a fixed white light to an occulting white light, visible for 6 seconds and eclipsed for 4 seconds alternately. The illuminating apparatus is dioptric of the sixth order.

Cape Bauld.—The fog alarm at this station was repaired, the roof and sides being reshingled; a coal shed built and modern diaphone machinery installed. The new alarm will be put in operation next season.

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This work was executed under the foremanship of Mr. Pouliot, at a cost of \$6,763.72.

Cape Norman.—Extensive repairs were carried out to the fog alarm building at this station, the roof on engine room reshingled, a new boiler placed on a good concrete foundation and machinery installed for replacing the present horn by a modern diaphone plant, which will be put in operation next season.

The work was carried out under the foremanship of Mr. Renaud at a cost of \$4,607.87.

Point Amour.—Considerable work was carried out to the fog alarm station at Point Amour. A large concrete cistern was built under the boiler room, and the foundations of the latter were replaced by concrete ones. The boiler and engine rooms were repaired and shingled, and a concrete reservoir was constructed around the spring.

The new fog alarm station is now entirely completed, with the exception of the construction of a coal shed, the work being carried out under the supervision of foreman Paradis, at a cost of \$3,158.32.

Greenly island.—Repairs were carried out to the fog alarm building at this station, the former whistle being replaced by a modern diaphone plant, which will be put in operation on the opening of navigation next season. A wooden reservoir was built, the roof shingled and painted, and a concrete floor put in the boiler and engine rooms.

The work was carried out under the foremanship of Mr. Gaumond, at a cost of \$6,649.37.

Cape Ray.—The following work was carried out at the alarm station at Cape Ray: A brick chimney, 50 feet high, was erected on solid concrete foundation; the roofs of the engine and boiler rooms were completed and shingled, and the interior of the building covered with two coats of paint; air tanks were placed on concrete blocks, and a reservoir was dug and properly concreted in the boiler room. The work was carried out by days' labour, under the superintendence of foreman Lachance, at a cost of \$5,097.82.

Bird rocks.—The light shown from this lighthouse, which was temporarily fixed white, is now an occulting white light, the light showing for 5 seconds and eclipsed for 15 seconds alternately.

Bryon island.—The light shown from this lighthouse was changed to a revolving red and white light, instead of a group flashing white light as heretofore.

The light will show one red flash and two white flashes every two minutes, the flashes attaining their greatest brilliancy every 40 seconds. The illuminating apparatus is catoptric.

Entry island.—The light heretofore maintained on the south side of Entry island in the Magdalen islands group, was discontinued and the lighthouse torn down and replaced by a new lighthouse erected on the summit of a steep hill on the south side of the island towards its east end, about $\frac{3}{4}$ mile from the site of the old lighthouse.

The lighthouse stands on ground 250 feet above high water mark, and is an octagonal, wooden building, with sloping sides, painted white, surmounted by an octagonal iron lantern painted red. The height from its base to the ventilator on the lantern is 32 feet.

The light shown is a fixed white light, elevated 277 feet above high water mark, and visible 16 miles, over an arc of 270°.

A new dwelling was built at the same time to replace the old one formerly attached to the tower.

This work was done under the direction of Mr. O. Tremblay, and cost \$5,539.85.

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Cape Rosier.—Extensive improvements were executed to the fog alarm building at this station, the former whistle being replaced by a modern diaphone plant, which will be put in operation on the opening of navigation next season. A new pond was dug and the sides sheathed with strong cedar timber; a wooden building was built over the tanks; new ventilators placed, and other repairs executed.

The work was done under the foremanship of Mr. Baleté, at a cost of \$5,374.76.

Fame point.—Extensive improvements were made to the fog alarm station at this point. A new fog alarm building having been erected and diaphone machinery installed. A large coal shed with a capacity of 212 tons was built. The new boilers were placed in position, and a brick stack, 50 feet high, was added to the building. Provision was made for bringing water to the station from a lake in the vicinity, a small dam being constructed and a pipe laid. Necessary repairs were made to the dwelling house and the new alarm will be put in operation next season.

The work was done under the foremanship of Mr. Richard at a cost of \$18,120.52.

Martin river.—A new wooden tower was erected near the old one at this station, from which an improved light will be shown on the opening of navigation next spring.

A fog alarm building, with an extension for air tanks and diaphone, was constructed over a concrete foundation and air compressing machinery partially installed. A brick stack, 50 feet high, was added to the building; a cistern was dug and cemented in boiler room, and a well, 10 feet in diameter, sunk and lined with a concrete wall.

The work was done under the foremanship of Mr. Edmond Patry, and the cost up to date has been \$14,435.25.

Roberval.—The Roberval range lights have been improved. The lights are fixed red incandescent electric lights, and the illuminating apparatus consists of 32-candle power lamps inclosed in square reflector lanterns.

The front light on the beach has been moved forward a distance of 600 feet in the same alignment. The front mast now stands on a cribwork pier 12 feet square, and 12 feet high, and the light is elevated 35 feet above the level of the lake.

The back mast was increased 10 feet in height, and the light is elevated 40 feet above the level of the lake. It is distant 700 feet from the front light.

Pointe aux Orignaux.—The old lighthouse on this wharf was demolished and replaced by a new lighthouse erected on the site of the old one.

The lighthouse is a rectangular wooden building, surmounted by an octagonal wooden lantern rising from the middle of the cottage roof. The building and lantern are painted white, and the roof of the building is red. The building is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 32 feet above high water mark, and visible 10 miles from all points of approach by water.

This work was carried out by days' labour under the direction of Ovide Tremblay, at a cost of \$5,068.69.

Algernon rock.—The lighthouse, on a wooden pier, at this station was repaired and placed on a good concrete foundation. The cribwork pier was completely refaced with concrete.

The work was done under the direction of Mr. O. Tremblay, at a cost of \$14,717.19.

Pointe à Basile.—The back tower of this range, destroyed by fire in November, 1904, was replaced by a new tower erected on the site of the old one.

The tower is a square building with sloping sides, consisting of an open steel framework, with wooden slats on the side facing the alignment, surmounted by a

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square iron lantern. The lantern is painted red, and the lower part of the building and wooden slats white. The tower is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed white catoptric light, elevated 200 feet above high water mark, and should be visible 14 miles in the line of range.

This tower was erected by days' labour, at a cost of \$756.35.

Longue pointe.—The lights shown from lantern hoisted on poles marking the axis of Longue Pointe traverse were replaced by stronger lights shown from inclosed towers.

The front building stands where the front pole previously stood, on the top of the river bank, 8,825 feet N. $5^{\circ} 42'$ E. from Longue Pointe church. The lighthouse is a square, wooden building, with vertical sides, surmounted by an octagonal wooden lantern, the whole painted white. It is 23 feet high from its base to the ventilator on the lantern.

The light is a fixed white catoptric light, elevated 41 feet above the summer level of the river, and should be visible 4 miles in the line of range.

The back tower stands 1,013 feet due north of the front one, on the north side of the main road. It is an inclosed wooden building, square in plan, with sloping sides, surmounted by a square, wooden lantern, the whole painted white. It is 45 feet high from its base to the ventilator on the lantern.

The light is a fixed white catoptric light, elevated 65 feet above the summer level of the river, and visible 4 miles in the line of range.

This work was done by contract by Messrs. J. B. Laflamme and J. G. Howard, the contract price being \$2,445.

In addition to the above items, minor repairs were carried out at the following stations:—

Red island.—Repairs to lighthouse and dwelling, \$305.

Father point.—Repairs to station, \$637.

Upper Traverse pier.—Repairing timber work and iron plating, \$976.

Anticosti (W. end).—Repairs to lighthouse, \$598.

Bicquette.—Installing new boiler, \$654.

Lower Traverse pier.—Repairs to pier, \$1,648.

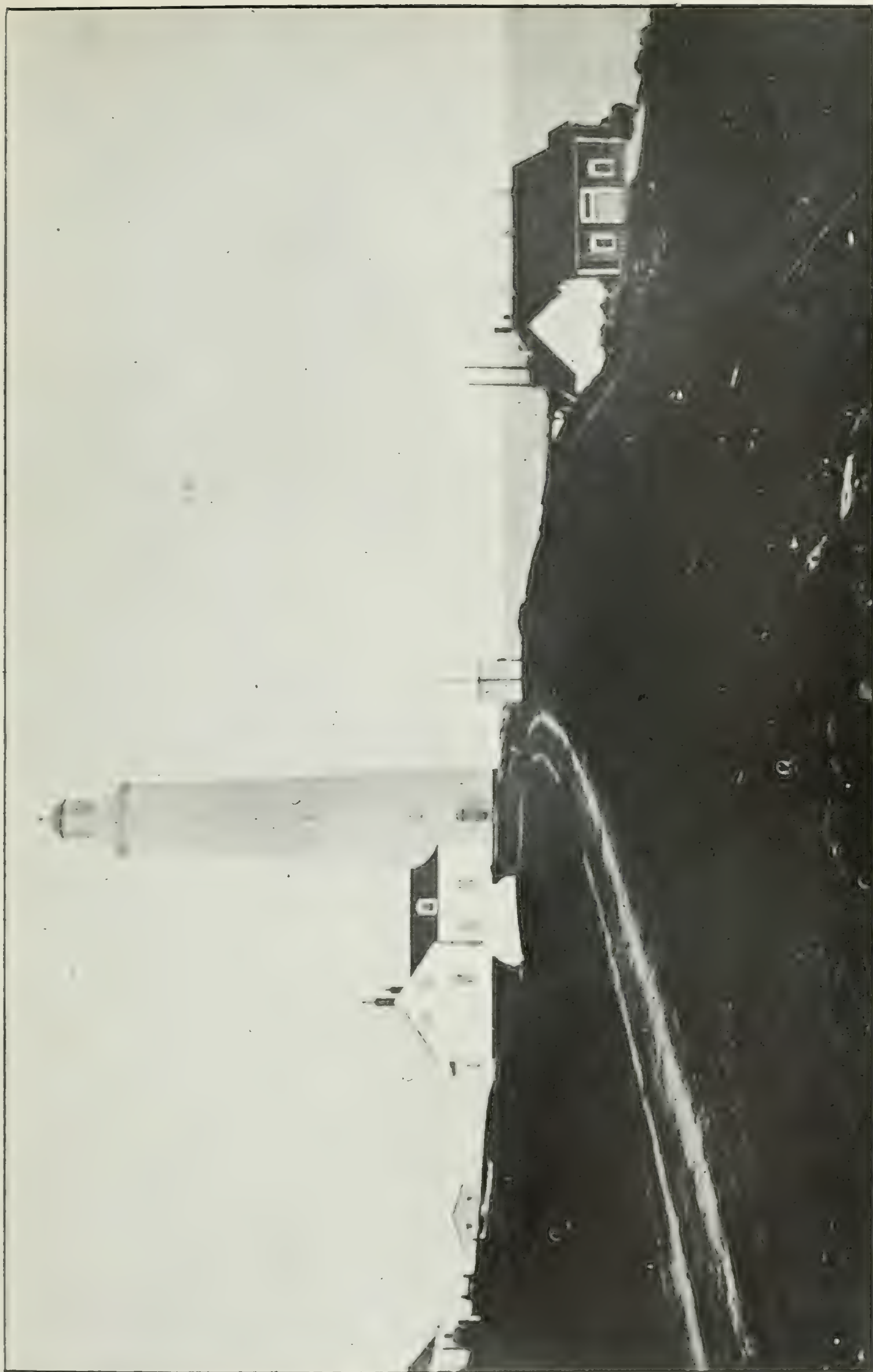
BRITISH COLUMBIA.

NEW AIDS TO NAVIGATION.

Lennard island.—A fog alarm building is being erected at this light station.

It is a rectangular, wooden structure and stands to the southward of the lighthouse, on the west end of the island. The work is being done by day's labour, under the foremanship of Mr. George Frost. In consequence of the difficulty of access to the site, and the absence of population on that coast, it was found impossible to do this work by contract. A three-inch diaphone is being installed in duplicate, the machinery being supplied by the Canadian Fog Signal Company, of Toronto, and it is hoped that the station will be ready for operation during the coming winter.

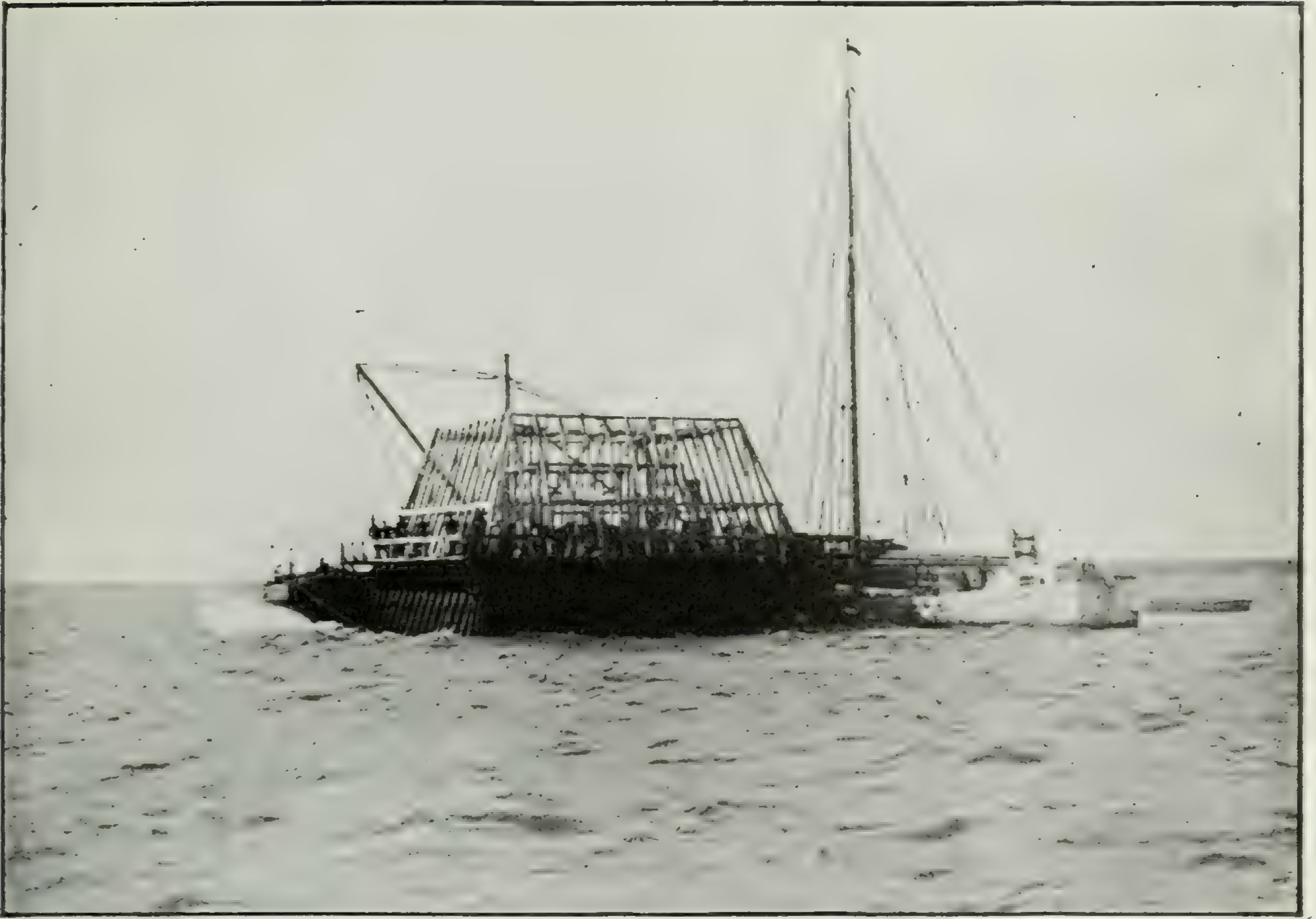
The amount expended to date has been \$9,785.42.



AMOUR POINT, LABRADOR, LIGHTHOUSE AND FOG ALARM.



ILE AUX RAISINS, QUEBEC. BACK RANGE LIGHTHOUSE.



POINTE DU LAC PIER, LAKE ST. PETER, QUEBEC. SHOWING FRAMES FOR CONCRETE.



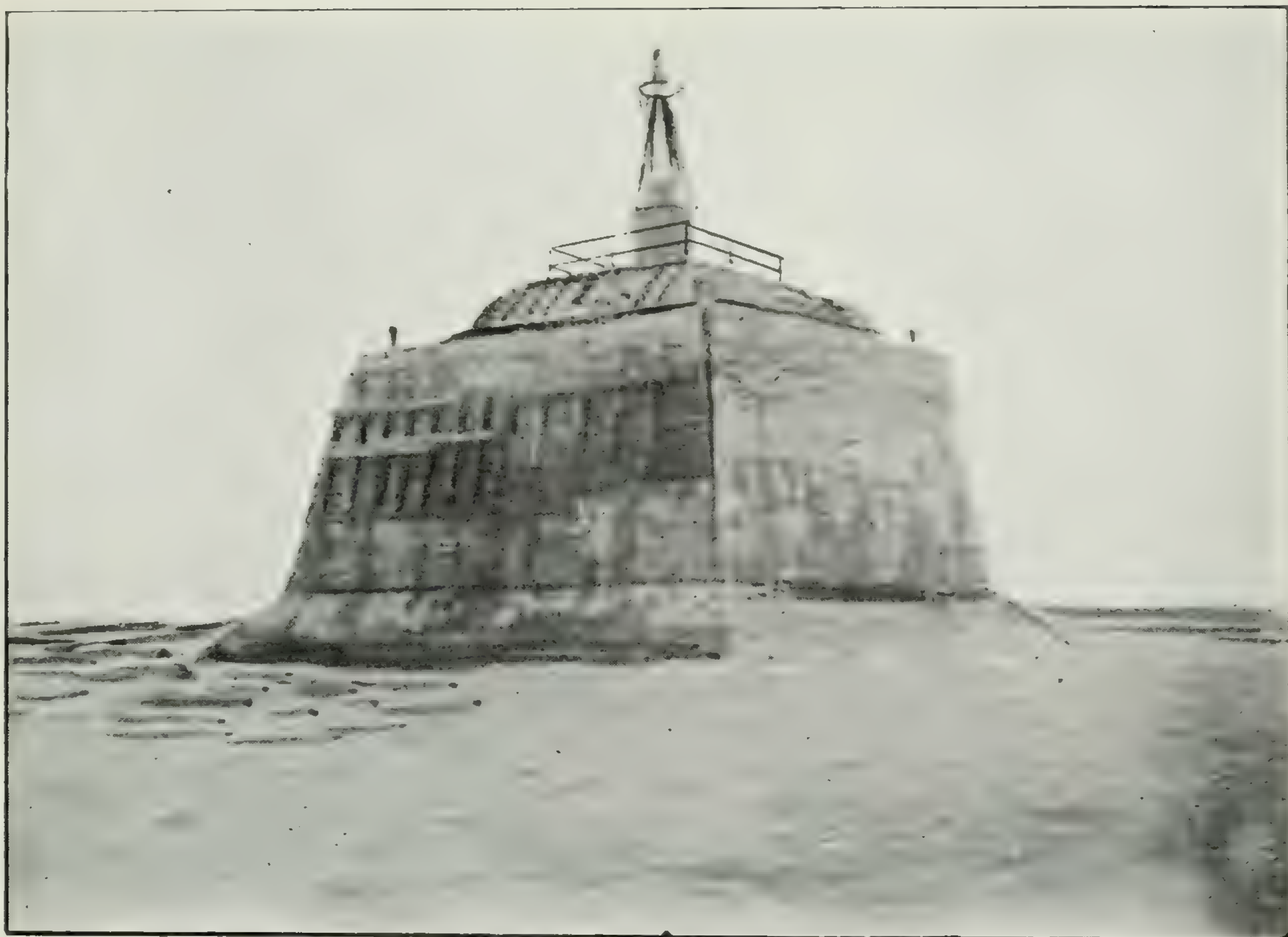
POINTE DU LAC PIER, LAKE ST. PETER, QUEBEC. SHOWING FRAMES FOR CONCRETE.



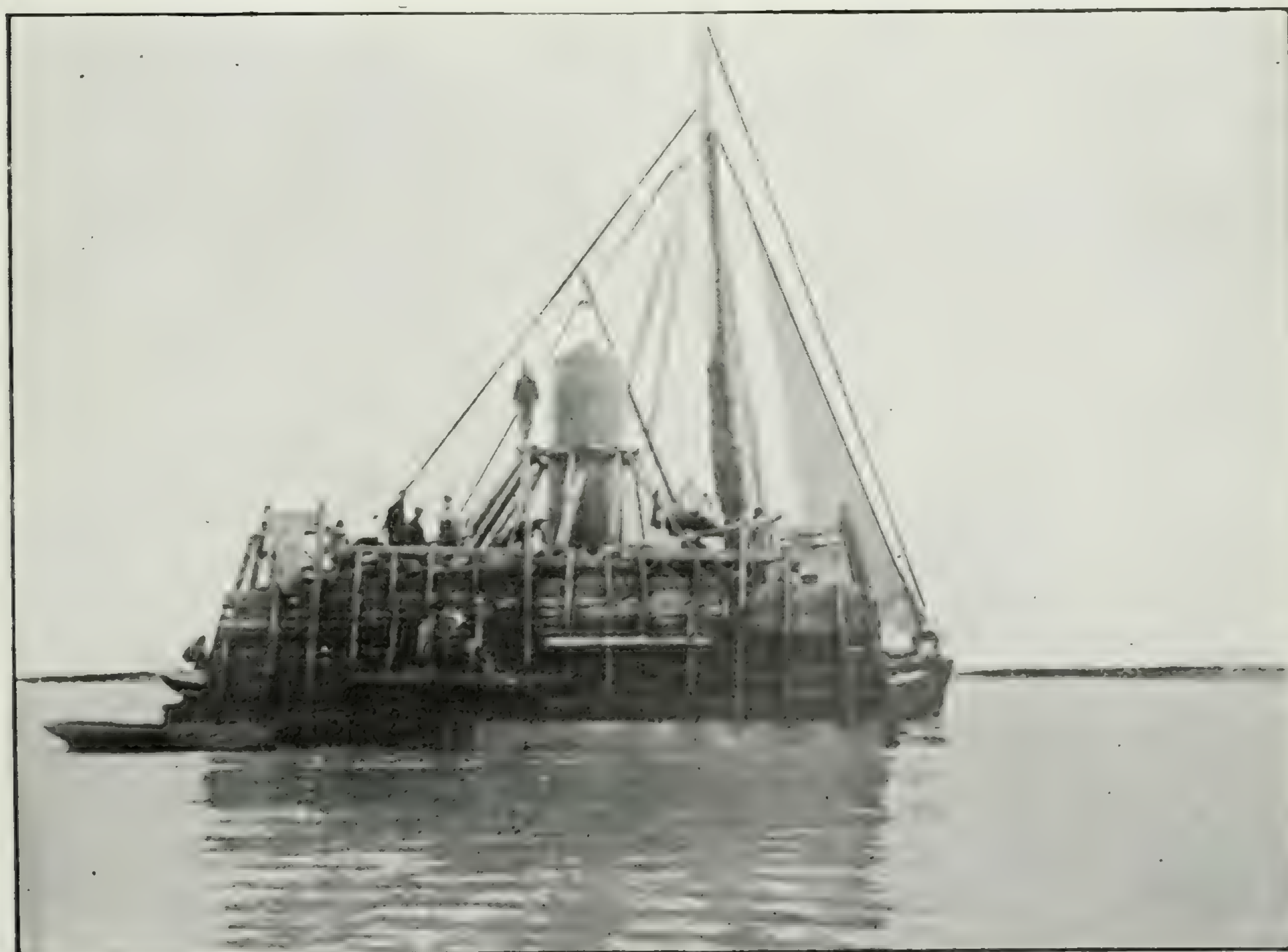
BEAUJEU BANK PIER, QUEBEC, UNDER CONSTRUCTION.



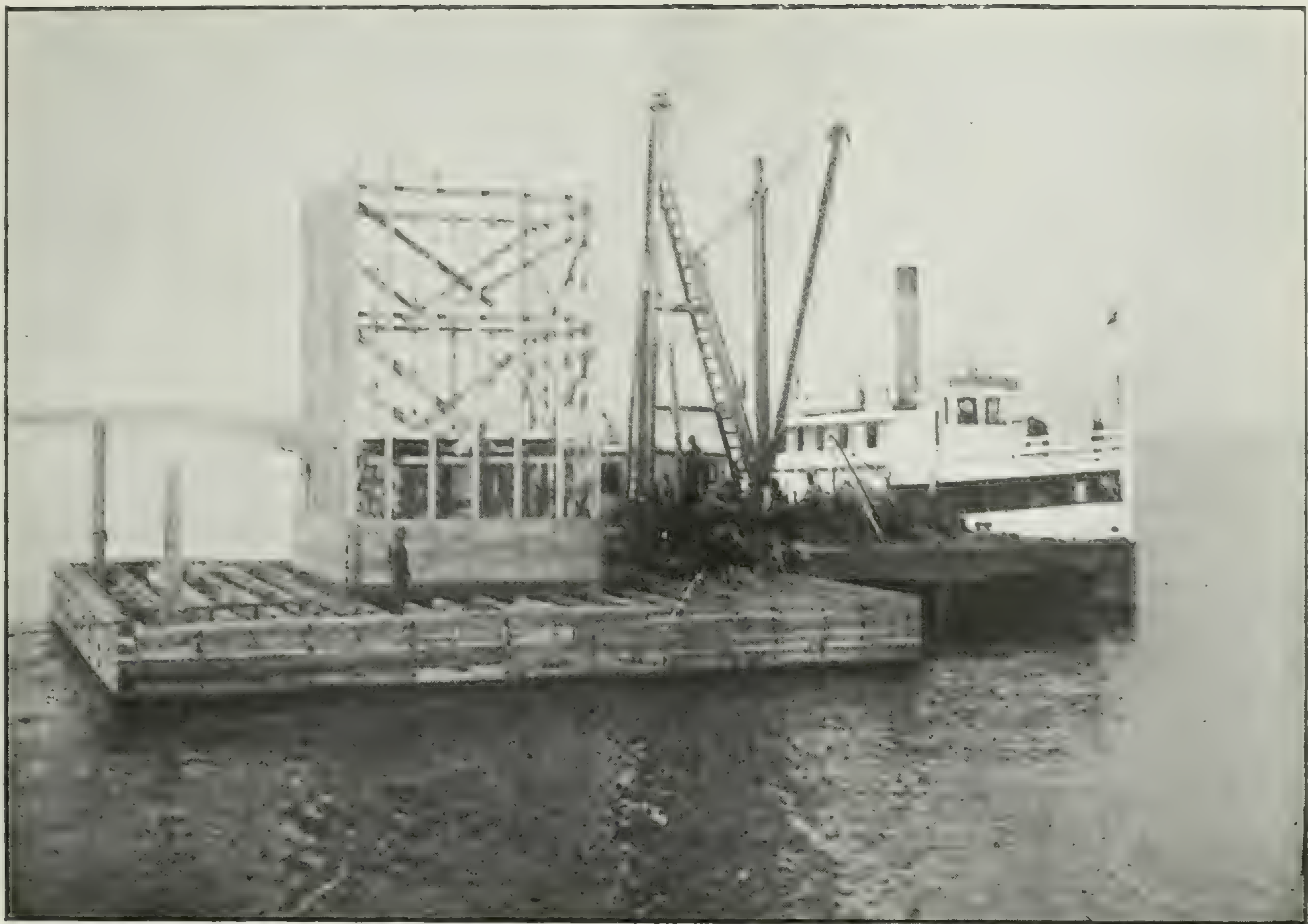
BEAUJEU BANK PIER, QUEBEC.



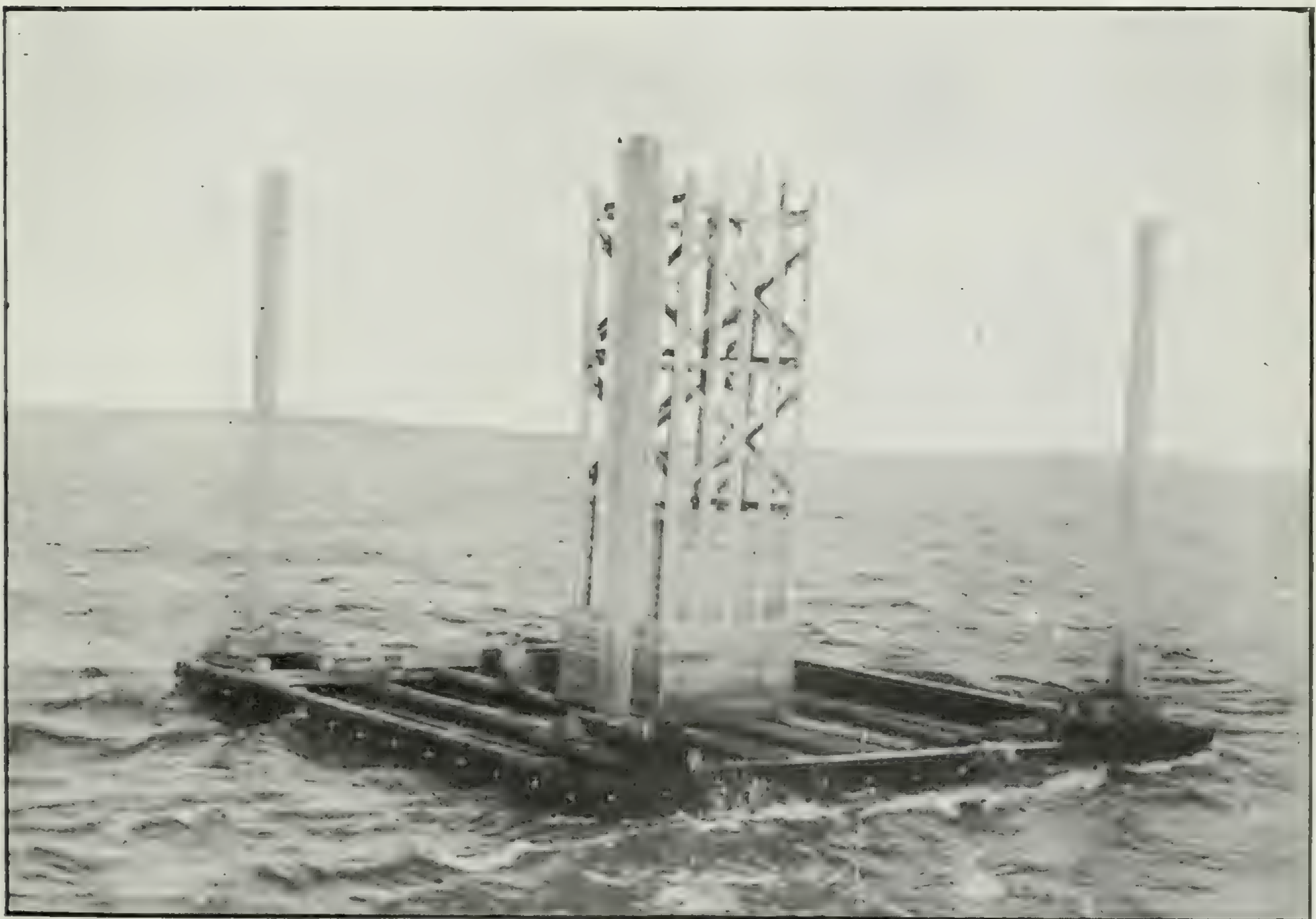
BEAUJEU BANK PIER, QUEBEC. AT LOW WATER.



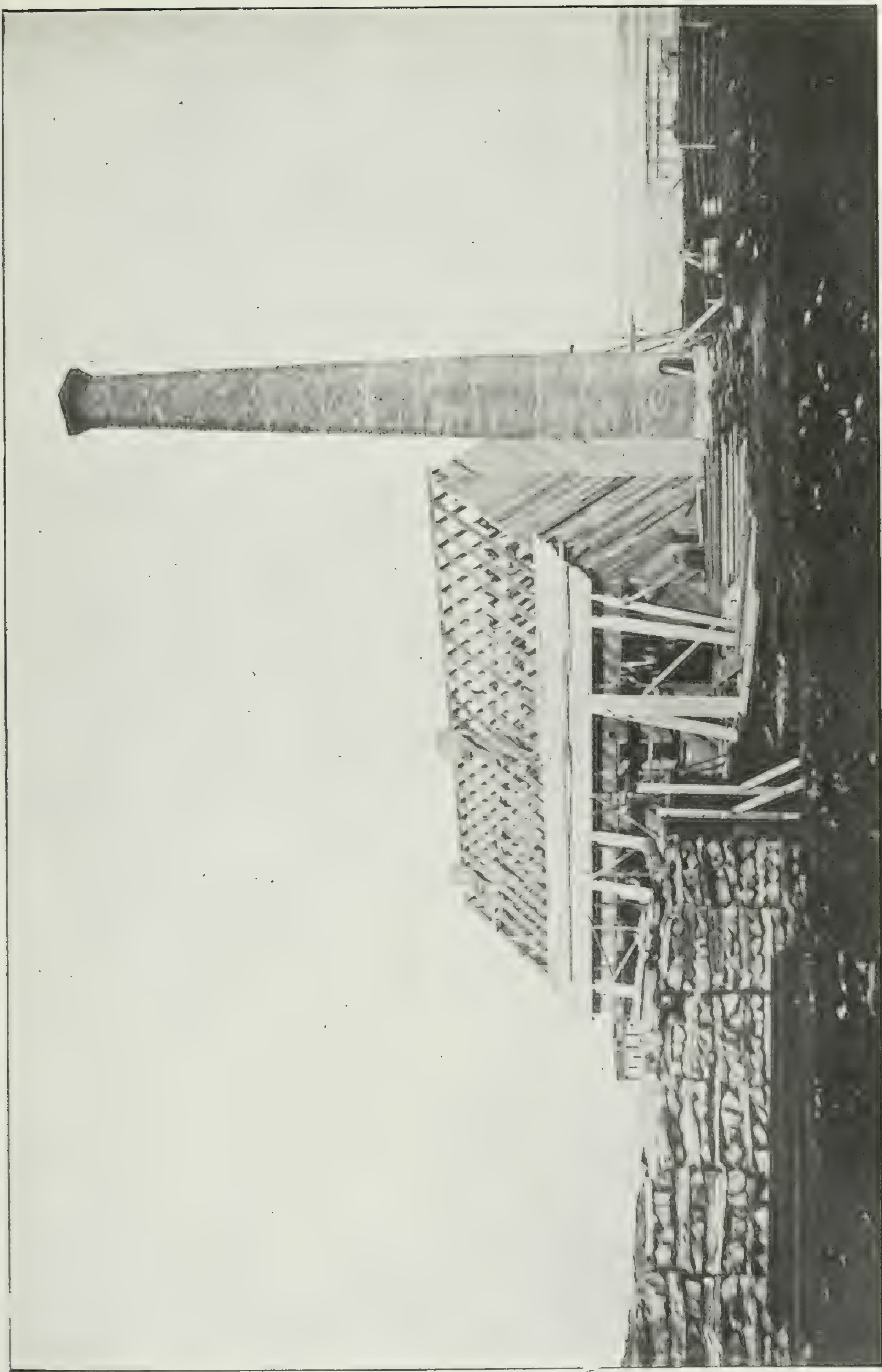
BEAUJEU BANK PIER, QUEBEC, UNDER CONSTRUCTION.



POINTE DU LA PIER, LAKE ST. PETER, QUEBEC. DRIVING ANCHOR PILES.



FOUNDATION FOR LAKE ST. PETER PIER, ON WAY TO POSITION.

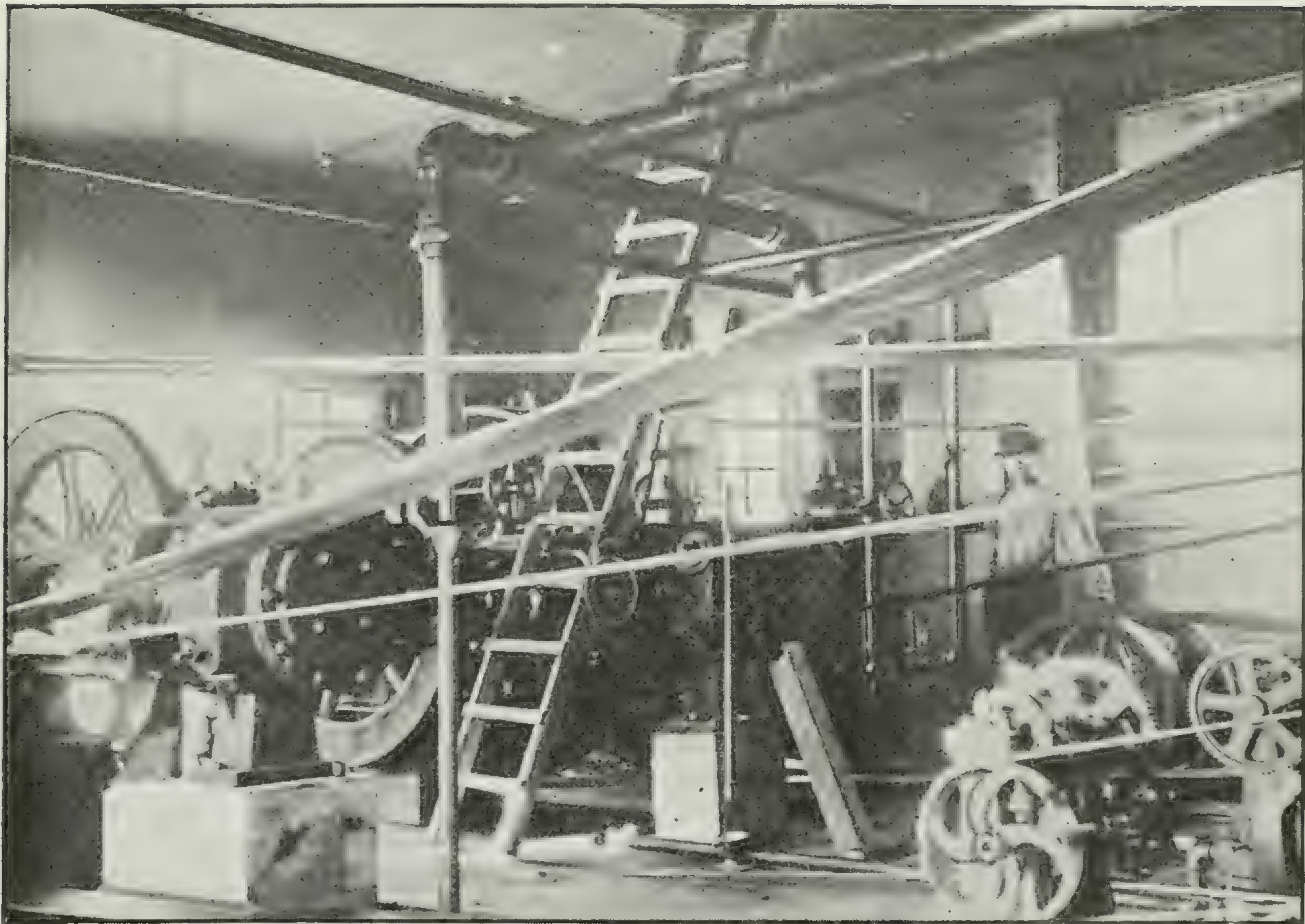


MARTIN RIVER, QUEBEC. FOG ALARM BUILDING UNDER CONSTRUCTION.

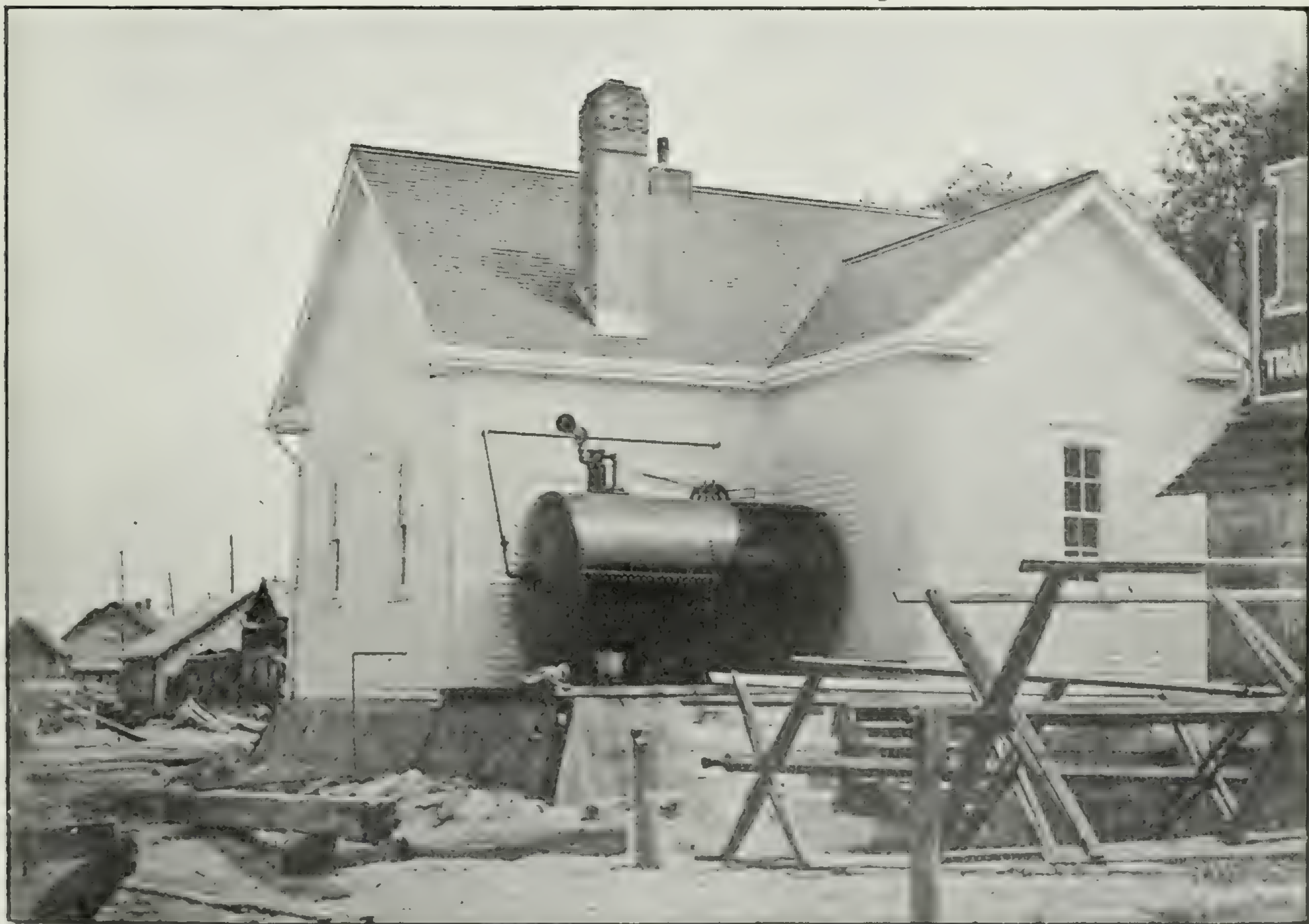




PORT ARTHUR, ONTARIO, LIGHTHOUSE.



INTERIOR TORONTO FOG ALARM.



NIAGARA, ONTARIO, FOG ALARM BUILDING.



PARTRIDGE ISLAND, NEW BUILDING FOR DIAPHONE.



ALGERNON ROCK LIGHTHOUSE, QUEBEC, UNDERGOING REPAIRS.

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Laurel point.—A harbour light was established on the extremity of Laurel point on the south side of Victoria harbour, and was put in operation on October 16, 1905.

The light consists of two 16-candle power incandescent electric lamps suspended in a red globe from a pole standing on the bare rock at high water mark at the north-west extremity of the point. It is elevated 25 feet above the rock and high water mark. The fixed red light is visible one mile from all points of approach by water.

The cost of installing the lights was \$115, and the work was carried out by the B. C. Electric Ry. Co., of Victoria, B.C.

Sand Heads.—A lightship was established on 18th October, 1905.

The vessel is of wood, with two bare masts and no bowsprit. She is painted red, with the words 'Sand Heads' in white on the forward bulwarks. Her bottom is coppered and her upper works are painted light gray.

The light is shown from an anchor lens lantern supported above the foretopmast head, and is a fixed white light, elevated 56 feet above the water. It is visible 13 miles from all points of approach.

The fog alarm, consisting of a bell operated by machinery, stands forward of the foremast, and gives one stroke every 10 seconds.

The old schooner *Mermaid* was purchased from her owners, The Victoria Sealing Co., Ltd., of Victoria, B.C., for the sum of \$3,000. She was thoroughly overhauled, repaired and fitted up for and converted into a lightship, the cost of the repairs amounting to \$9,778.90; including the purchase of anchors, chains, and other accessories.

When this light was exhibited, the light shown from the pile lighthouse on the Sand heads was permanently discontinued.

Fraser river.—Two beacon lights were established to guide through the north arm of Fraser river. These lights are shown from small square wooden towers, painted white, standing on platforms supported on piles.

The lights are fixed white lights, shown from 31-day Wigham lamps, elevated 20 feet above high water mark, and should be visible 9 miles from all points of approach by water. The illuminating apparatus in each case consists of a pressed glass lens. The lights are unwatched. The more westerly light stands one mile S. 56° E. from Point No Point, and the more easterly one about $\frac{1}{2}$ mile east of the entrance to the north arm, and bears S. 85° E. distant $1\frac{3}{4}$ miles from the more westerly light.

This work was carried out under the direction of the agency of the department, at Victoria, at a cost of \$430.57.

Graeme point.—A lighthouse was established on Graeme point, Malcolm island, where Broughton strait runs into Queen Charlotte sound and was put in operation on September 12, 1905.

The lighthouse stands on the extremity of the low gravel spit. It is a square, wooden building, with a square wooden lantern rising from the middle of the cottage roof, is painted white, with the roofs red, and is 35 feet high from its base to the ventilator on the lantern.

The light is a fixed white dioptric light of the seventh order. It is elevated 38 feet above high water mark, and visible 11 miles over an arc of 230°.

The building was erected by days' labour, and the amount expended on this station to date has been \$6,194.08.

Scarlett point.—A lighthouse was erected on Scarlett point, Balaklava island, northwest point of the entrance to Christie passage, and was put in operation on April 12, 1905.

The lighthouse stands 100 feet back from the water's edge, at the small depression in the eastern extremity of the point. It is a rectangular, wooden building with a hip roof, surmounted by a square, wooden lantern rising from the middle of the roof. The

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sides of the building and lantern are painted white, and the roofs red. The lighthouse is 37 feet from its base to the ventilator on the lantern.

The light is a fixed red dioptric light, of the seventh order, elevated 90 feet above high water mark, and visible 10 miles from all points of approach by water.

During the period in which this lighthouse was being built, a temporary fixed white light was shown near the site of the lighthouse.

The building was erected by days' work under the foremanship of Mr. G. Blain, and the amount expended to date has been \$7,642.66.

Birnie island.—A light was established on the southwest point of Birnie island, entrance to Port Simpson, and was put in operation on November 30, 1904.

The light is an unwatched light, shown from a Wigham 31-day oil lamp. It is fixed white, elevated 65 feet above high water mark, and visible 10 miles over an arc of 221°. The illuminating apparatus consists of a pressed glass lens.

This work was performed by days' labour, at a cost of \$114.83.

Green island.—A combined lighthouse tower and dwelling is being established on the most southwesterly point of the island.

It is a framed wooden building, with shingled sides, surmounted by a 10-foot iron lantern, and is 44 feet high from its base to the top of the ventilator on the lantern.

This work is being done by days' labour under the superintendence of Mr. George Forrest, and has cost, up to date, \$6,534.31.

Pilot bay.—A lighthouse was established on Pilot point, on the east shore of Kootenay lake, and was put in operation on January 1, 1905.

The lighthouse tower stands on the highest point, near the north end, of the peninsula formed by Pilot bay, formerly popularly known as Cape Horn but re-named Pilot point by the Geographic Board of Canada. It is a wooden building, square in plan, with sloping sides, surmounted by a square, wooden lantern, the whole painted white. It is 37 feet high from its base to the ventilator on the lantern.

The light is a fixed white dioptric light, of the seventh order, elevated 130 feet above the level of the lake, and visible 17 miles from all points of approach by water.

This work was done by contract by D. C. MacGregor, of Kaslo, the contract price being \$500.

APPENDIX No. 2.

ANNUAL REPORT OF THE COMMISSIONER OF LIGHTS.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the second report of this branch to December 30.

During the past year in addition to the routine work of supervising the operation and maintenance of the aids to navigation, progress has been made in the following directions, viz.:—

1. The gas buoy service has been extended in the directions indicated below.
2. A comprehensive scheme for the improvement of the optical apparatus in the principal stations in the River and Gulf of St. Lawrence and Atlantic seaboard has been laid down and is being carried out.
3. Progress has been made in the extension of submarine signal stations.
4. Work has been continued at the Dominion lighthouse depot, Prescott, Ont.
5. Reference was made in the last annual report of this branch to the improvement of fog alarm plants by the substitution of diaphones for horns and whistles. This work, however, has been continued under the direction of the chief engineer.

The necessity for the appointment of resident engineers in the different provinces in order to relieve the superintendents of lighthouses of the supervision of construction

The necessity for the appointment of resident engineers in the different provinces, of Quebec, and another for the maritime provinces.

The buoy service of the Dominion is either done by contract or carried out by the department under the supervision of its officers, and the necessity of a more rigid inspection of the contract buoy service was referred to in the last annual report. It has been found in practice that where buoy contracts are not efficiently supervised that very indifferent results are obtained, and a plan will be submitted whereby all these contracts will be inspected regularly by a competent technical officer.

Mr. Stumbles, who has charge of the buoy contract system at headquarters, has continued to give the service the best attention possible.

With reference to that portion of the buoy service which is directly looked after by the department, it must be pointed out that owing to the increase in the number of buoys in the past few years the facilities at the disposal of the department are over-taxed, and it is necessary to consider the question of providing more appliances and steamers for handling this work.

The increasing importance of the traffic into the Georgian bay and the establishment of a buoy depot for this region at Parry Sound, Ont., calls for an adequate departmental service for attending to the buoyage in the Georgian bay, and for supplying the lighthouses in this district, and on Lakes Superior and Huron, when the existing contracts for supplying the lighthouses have terminated. The Parry sound buoy service is carried out at present by contract, and has given satisfaction to the department, but no facilities exist at present for any systematic inspection or supervision of the buoy service in the Georgian bay. Of the aids to navigation in the upper lakes, the only inspection possible has been the annual inspection of the Superintendent of Lighthouses, Ontario Division, while delivering the yearly lighthouse supplies. The lighthouse supply trip which is done by contract is completed in the shortest possible time, and the lightkeepers know in advance within a few days when the inspector will arrive.

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Furthermore, in making improvements and repairs at many isolated stations, the principal item of cost is the transportation of men and materials to the spot, and work of this class could be carried out more efficiently by a departmental steamer.

A suitable boat with a base at Parry sound, during the season of navigation could supply all the lighthouses west of Port Colborne, and the Lake Ontario lights can be supplied and inspected by the steamers of Montreal-Kingston Division.

The lighthouses on the Ottawa river between St. Anne's and Ottawa can also be inspected and supplied by the steamers on the Montreal-Kingston Division, and a closer inspection of the aids to navigation on the Ottawa river is desirable.

The opening of an agency at Montreal places the control of the lights and the buoyage between Platon and Montreal, the Richelieu river and Lake Memphremagog, under the charge of Mr. U. P. Boucher, C. E. Agent, but not having facilities for carrying on the buoy service and at the same time supplying and inspecting the lights, this work has been temporarily left in charge of Mr. J. U. Gregory, I. S. O. Agent of the department at Quebec.

For looking after the ship channel buoy service Mr. Boucher has under his direction the C.G.S. *Shamrock* and the gas and derrick scow *Acetylene*. The *Shamrock* was built by the then buoy contractor when the ship channel service was let by contract. When the contract was taken over by the department this steamer was taken over at the same time, and is neither large enough nor powerful enough for the service as it is to-day. The *Shamrock* should be replaced as soon as possible by a powerful twin screw steel steamer specially designed for the work.

The increase in the number of buoys in the Bay of Fundy and around the coast of Nova Scotia, and the introduction of large lighted signal buoys necessitates additional facilities for the proper maintenance of the buoy service in the districts referred to. It is proposed to meet this difficulty by assigning the C.G.S. *Aberdeen* solely for buoy service in New Brunswick and Nova Scotia, and in the general overhauling which this steamer has recently received, her hoisting facilities have been strengthened to lift 25 tons. If the exigencies of the service should prevent the *Aberdeen* being used for this work an additional steamer will be urgently required.

DOMINION LIGHTHOUSE DEPOT.

Established at Prescott in November, 1903, as a central depot for the manufacture, storage and distribution of lighthouse apparatus and lanterns, and also as the headquarters of the Montreal-Kingston and Ottawa river buoy service.

A general description of the property together with the improvements made in 1904, is contained in the last annual report of the department.

A gantry capable of lifting 20 tons, operated by hand, has been erected over the railway tracks which enter the property.

Work has been continued on the carpenter shop and gas testing house and they have been completed. The former which is 35 x 50 feet in plan, two stories in height, contains on the ground floor, wood working tools which have greatly facilitated and cheapened the repair work done in the yard.

The new gas testing house will enable the work of adjusting the gas lanterns to be carried on outside the main storage building and so reduce the risk of fire.

While the storage and office buildings and the new structures erected are not fire-proof, every precaution has been taken to guard against fire, and a complete sprinkler system has been installed throughout the works. Stand pipes have been placed on each flat and a 1,000 gallon underwriter's pump provides a service independent of the town plant. Hydrants have been placed around the buildings and check valves between the town main and the department's service mains. This permits the utilization of the

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town water supply as long as the pressure is sufficiently high. If this should fail, the check valves prevent the department's pump from pumping into the town main. The system has been thoroughly tested and found satisfactory.

With reference to the improvement of the water front the general lines recommended in the last annual report were viz., that the southern face of the property 'be carried out to the line of the south face of the present deep water wharf on the southwest corner of the property and that a slip 80 feet wide be left at the eastern side to haul out boats or scows . . . In addition to this a basin should be built from the southwest corner of the deep water wharf by running a pier south from 80 to 100 feet and thence easterly or parallel to the face of the property a distance of about 400 feet.'

A further examination shows that owing to the nature of the bottom it will be impracticable to construct the basin referred to and that it will be necessary to widen the slip from 80 to 135 feet and carry the southern face cribs easterly leaving an opening of 60 feet. This will give an inclosed basin protected from all winds, and will materially reduce the cost of the work.

During the past season the eastern line of cribwork was extended south 175 feet and 51 feet must be added to complete this portion.

Three cribs in all 90 feet were sunk on the continuation eastwardly of the south face of the deep water wharf and there remains to complete the work, 153 feet of cribwork in extension of the above, and 180 feet of cribwork to form the western side of the basin.

Owing to delay in proceeding with this work in 1904 it was necessary to redredge the crib seats and it is hoped that no further delay will be experienced.

The desirability of completing the depot by the erection of a permanent machine shop is apparent, and it is hoped that provision can be made for this.

Plans and specifications have been prepared for a shop 60 x 100, of brick and structural steel, fireproof throughout. The present temporary machine shop 20 x 35 feet, has been engaged almost entirely on repair work.

At the close of the season of navigation the flotilla of the hydrographic survey was hauled out at the yard and in addition to this the steamers and scows of the Montreal-Kingston Division were berthed.

This depot is in charge of Mr. W. H. Noble, assistant commissioner of lights, and Mr. A. Boyle has been made accountant on the transfer of Mr. M. Brais to Parry Sound as agent.

The staff of the depot has been increased by the addition of Mr. Alan Brebner, M. Inst., C. E., who has been engaged in carrying out comparative tests with various illuminants. On the completion of these tests the results will be published.

ACETYLENE LIGHTING.

The past season has been noted for the further proving of the advantages of the Willson low pressure automatic acetylene buoy and for the explosion of two high pressure acetylene buoys at Kingston on April 18, while lying at the government dry dock at Kingston. This accident caused the loss of four lives, including that of the Captain, *W. H. Allison*. A fire which started immediately burned the upper works of the steamer.

At the time of the accident, the *Scout* was engaged in filling three gas buoys. Two were charged to 12 atmospheres for more than an hour, and the third was being filled, and a pressure of 6 atmospheres was reached when, without warning, the first buoy exploded. The shock exploded the second buoy and blew the third buoy on its side; the gas escaping from the broken hose lighted and burned out.

The cause of the accident formed the subject of a rigid inquiry conducted by Mr. F. Adams, Chairman of the Board of Steamboat Inspectors, assisted by Messrs. John Dodds and T. P. Thompson, Steamboat Inspectors, as assessors.

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The chairman reported to the department as follows, viz.:—

‘As per instructions by letter of 19th instant to investigate cause of explosion on steamer *Scout* at Kingston, April 18, involving loss of life, I beg to submit the following report:—

‘I respectfully submit from the evidence produced and also from the personal examination by myself and associates, made of the portions of exploded buoys available, and also of the intact buoy, from which we obtained the data to compute the strength of the buoys, which we have done on the same basis and formulas as are applied to arrive at the working pressure allowable on the shells of boilers subjected to internal steam pressure, and which pressure is exerted on the form of buoys that exploded in a similar manner as in the steam boiler, and which in our opinion is both applicable and necessary should be applied in like manner to such buoys, in the interest of public safety.

‘We find by calculations based on the rules laid down by different reliable authorities for determining such pressure, and what may be considered as having a margin of safety for public protection; that if said buoys had been constructed in such manner as is mechanically considered the best and safest practice, the greatest allowable working pressure that would be permitted on the shell is 151 lb. per square inch (or in other words) 10 atmospheres; but we find the heads or ends of buoys on account of their form would only be considered equal to 100 lb. per square inch, or about six and a half atmospheres; and from the examination of those buoys we find they are not constructed in what is termed ‘best manner’ by reliable authorities, and would not be accepted for steam boiler construction by either British Board of Trade Rules, Lloyds, nor yet Canadian rules where subjected to such strains as those buoys were, such methods being considered unsafe and unreliable; therefore, under these conditions, even if accepted, could only be considered at a less pressure on shell than as heretofore stated.

‘We find from the evidence of the engineer, Mr. G. Lessard, that the usual practice has been to subject those buoys to 12 atmospheres, and in warm weather to 13 atmospheres, and have been put to 14 atmospheres, which means usually 180 pounds per square inch, and ranging at times to 210 pounds per square inch, and although done would not be to the bursting point, but would ultimately reduce the strength of the material and have a deteriorating effect through time on its strength and safety; we also find on personal examination and have evidence in possession which can be submitted, where the longitudinal weld was imperfect, in fact for a length of 10 inches there has been only about $\frac{1}{8}$ of an inch of solid metal, which would cause the structure to be much weaker than the dimensions would indicate, we also found similar evidence in other parts of the exploded buoys, particularly where the ends are welded to the shell, which demonstrates conclusively defective and unreliable construction, and structural weakness.

‘It is our opinion the cause of the second buoy exploding was due to its being loaded to the 12 atmospheres, and when the first buoy gave away, the second one being also loaded and in close proximity, it being under extreme pressure for its strength, the sudden shock was the cause of its exploding, further demonstrating that the buoys were subjected to undue pressure in the interest of safety.

‘The cause of the ignition and fire, we find from the evidence of Captain Augustus, who was about 120 or 130 feet away at the time of the explosion, and was standing looking at the steamer; he states he heard the report, that there was no blaze until there was a column of smoke about 25 feet in the air, when it then flashed like lightning.

‘Our conclusion from this is that when the buoy gave away from structural weakness (which we are of the opinion from examination) was due to the lower welded circumferential seam of the head of shell giving away, the gas expanded and entering the boat (which is stated as having been a distance of 4 feet from the buoys) came in contact with the fire in the furnaces of the boiler and heated atmosphere, which caused

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ignition to occur; the ignition could also have been due to friction of the material when the rupture took place.

‘From the aforesaid reasons we are of opinion the cause of the explosion was due to the buoys being subjected to pressure, which in our opinion they were not sufficiently strong to withstand, and the defects as demonstrated in their construction rendering them more susceptible to weakness was the cause of the explosion which occurred in connection with the steamer *Scout*.

‘Respectfully submitted,

‘Assessor. JNO. DODDS,

‘Assessor. THOS. P. THOMPSON.

‘(Sgd.) E. ADAMS,

‘Commissioner.’

The buoys which failed were two of 39 shallow draft gas buoys which had been handed over to this department, in 1902, by the Department of Railways and Canals, when the Marine Department took over the buoyage of the upper St. Lawrence between Lachine and Prescott.

They had constantly been subjected to a pressure of 12 to 15 atmospheres both by the two departments and by the makers of the buoys when charging the same at Montreal.

No test has ever been called for by this department in the past and the works test of the manufacturers has been accepted.

The Engineer Secretary of the United States Lighthouse Board in response to a question as to the practice of the United States government, under date of September 8, 1905, states,—

‘That all gas buoys, welded steel, purchased for the use of the lighthouse establishment, are subjected to a test of at least 188 pounds ($12\frac{1}{2}$ atmospheres) per square inch after delivery by the manufacturers for a period of from one to two weeks, and frequently longer (Pintsch compressed gas, not acetylene).

‘The maximum working pressure carried in gas buoys in the Third Lighthouse District is 180 pounds (12 atmospheres) per square inch.

‘Before the buoys are delivered, they are given a test by the manufacturers of 275 to 300 pounds per square inch.’

The immediate effect of the accident was to cause a general order to issue reducing the pressure to be carried on all compression gas buoys to 5 atmospheres.

This was maintained throughout the season on the type of buoys affected by the accident and on other and structurally stronger buoys the pressure carried was raised to not over 10 atmospheres.

It is the intention to withdraw from service the remainder of the 39 shallow draft gas buoys and to fit them with the ‘American’ bell ringing attachment and utilize them for fishing harbours in the maritime provinces.

Reviewing the cause of the accident, the following points are noted :—

1. The explosion took place in buoys already filled and as stated in the report of the Commission which held the investigation, was caused by structural weakness in the buoy ;

2. There is no case on record of the spontaneous explosion of acetylene under pressure contained in a receiver provided the acetylene is not in liquid form ;

3. The formation of any explosive compound even in the smallest quantity due to the action of acetylene on metals (copper, or brass) cannot take place under service conditions. Exhaustive tests on this point have been carried out in Germany.

Careful consideration of the above points decided the department that its practice was correct and no change in this class of work was made beyond the reduction in pressure indicated above, but as pointed out below, all new acetylene buoys will be low pressure for the advantages which this type presents over compression buoys.

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The reduction in pressure from 15 to 10 atmospheres renders it necessary to charge the system of acetylene lights more frequently but does not change in any way the advantages of compressed acetylene over compressed oil gas.

These points of advantage are as follows, viz.:—

1. For an equal volume of gas burned, acetylene gives more than five times the light ;

2. Acetylene can be generated on the deck of a lighthouse tender in a portable gas apparatus, whereas all oil gas must be transported in storeholders from gas works on shore ;

3. All over ten atmospheres pressure more acetylene can be compressed into a holder than oil gas as the latter begins to deposit liquid hydrocarbons at or before this pressure, thereby reducing the illuminating power of the gas.

In the extension of the gas buoy service during the past season, automatic low pressure acetylene buoys have been utilized and this type of buoy finally adopted.

In the low pressure buoy carrying its charge of carbide within the buoy, the following advantages are found, viz.:—

1. In the compression type the gas is raised to a maximum pressure of 225 pounds per square inch; in the automatic type the maximum pressure does not exceed a few pounds per square inch;

2. Compression buoys require for their maintenance a gas generating plant. In the case of acetylene this could be placed on the deck of a lighthouse tender or scow; with oil gas it must be located on shore and the gas transported in holders to the buoy ;

3. The elimination of compression and the fact that automatic buoys may be recharged from a boat, if necessary, permits the installation of gas buoys in isolated positions where it was not practicable before ;

4. An automatic gas buoy, fully charged, can carry from 9,000 to 10,000 feet of gas in the form of carbide. The standard compression buoy (170 cubic feet per atmosphere) at 15 atmospheres will contain about one-quarter as much gas. It is seen that an automatic buoy can be charged on the opening of navigation and requires no attention in so far as gas supply is concerned until navigation closes, or sufficient, if necessary, for one year where the gas consumption is equal to that of the old type buoys ;

5. The adoption of this principle more readily permits the lighting of other classes of buoys, such as whistling and bell buoys.

The new gas buoy service has been inaugurated at the agencies at Halifax, St. John, Charlottetown, Quebec. At Port Arthur, Lake Superior, and Port Colborne, Lake Ontario, and gas buoys are to be placed in the Rivers Restigouche and Miramichi, in New Brunswick, Lakes Winnipeg and Nipissing, and on the Pacific coast, on or shortly after the opening of navigation this year, every preparation having been made for this purpose.

The following table shows the distribution of low pressure gas buoys at the close of navigation, viz.:—

NOVA SCOTIA.

- 10 No. 9 combined gas and whistling buoys.
- 2 No. 7 standard gas buoys.
- 2 No. 7 gas and bell buoys.

NEW BRUNSWICK.

- 1 No. 5 special gas buoy.
- 2 No. 5 gas buoys.

PRINCE EDWARD ISLAND.

- 1 No. 9 combined gas and whistling buoy.

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QUEBEC.

17 No. 7 standard gas buoys.

ABOVE KINGSTON.

- 1 No. 7 standard gas buoy, Port Colborne.
- 3 No. 5 gas buoys, Port Arthur.

The following gas buoys will be in service at the points mentioned below on the opening of navigation :—

NEW BRUNSWICK.

- 1 No. 5 gas buoy, River Miramichi.
- 3 No. 5 gas buoys, River Restigouche.

ONTARIO.

1 No. 5 gas buoy, Lake Nipissing.

MANITOBA.

3 No. 5 gas buoys, Lake Winnipeg.

SUMMARY of low pressure Gas Buoys in service.

Locality.	No. 9 Gas and Whistling.	No. 7 Standard Gas Buoy.	No. 7 Gas and Bell Buoy.	No. 5 Gas Buoy.	No. 5 Special.
Nova Scotia Agency.....	9	2	2	—	—
New Brunswick ".....	—	—	—	2	1
Quebec Agency.....	—	17	—	—	—
Charlottetown.....	1	—	—	—	—
Port Colborne.....	—	1	—	—	—
Port Arthur.....	—	—	—	3	—

SUMMARY of low pressure Gas Buoys to be placed on the opening of navigation.

Locality.	No. 5 Gas Buoys.
River Restigouche, N.B.....	3
River Miramichi, N.B.....	1
Lake Nipissing, Ont.	1
Lake Winnipeg, Man.....	3

In the low pressure acetylene buoy the carbide charge (from ½ to 1¼ tons) is carried in a central generating tube of welded steel supported by a flotation chamber. The carbide restes on a cast steel grating below which is a diaphragm of steel with a 8-inch opening closed by a valve operated by a valve stem which passes through a tube

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in the carbide chamber, then through the cast steel head of the same and is operated from the deck of the buoy.

The bottom of the generating tube is open to the water and the top is closed by a steel casting containing the purifier and carbide door for filling the buoy.

The buoys are filled with carbide before placing with the valve closed. The valve is opened admitting water to the charge, and the air blown out of the generating tube through a small plug provided, and out of the gas lantern in the usual way, after which the buoy is lighted.

The use of the above method for lighting signal buoys has been also worked out. The Courtenay principle has been used. Instead of a single central tube for compressing the air to sound the whistle, twin tubes are made use of, the axes of these tubes and the axes of the generating tube being in the same plane.

The following is a description of the types of gas buoys and gas and whistling buoys which have been placed in service, viz.:—

1. *Nos. 5 and 6 shallow draft river and harbour gas buoy.*—This is a small buoy Pintsch gas lantern is used with two $\frac{1}{4}$ foot main flames and two $\frac{1}{8}$ foot pilot flames. The flotation chamber 6 feet in diameter, is cylindrical and is formed of a body plate and two shallow dished heads. The generating tube is 24 inches in diameter. The light is exhibited $7\frac{1}{2}$ feet above the water.

2. *No. 7 standard gas buoy.*—This size of buoy has been adopted as the standard for general requirements. These buoys have a cylindrical flotation chamber composed of a body plate and two shallow dished heads. The diameter of the flotation chamber is 7 feet. A standard Pintsch gas lantern is used with two $\frac{1}{4}$ foot and two $\frac{1}{8}$ foot pilot flames, and the light is exhibited $7\frac{1}{2}$ feet above the water. The generating tube is 30 inches in diameter and the carbide charge is 2,500 lbs.

3. *No. 9 combined gas and whistling buoy.*—This is a lighted whistling buoy, the Courtenay principle being used to produce the sound. This buoy has a cylindrical flotation chamber 9 feet in diameter and composed of a body plate and two shallow dished heads. The generating tube is centrally located and twin whistling tubes are provided. These tubes are 20 inches in diameter, and the buoy draws about $19\frac{1}{2}$ feet of water. This buoy, which has a 10-inch whistle, was designed to have the same whistling power as the Courtenay buoys now in the Canadian service. The light exhibited from a standard gas lantern is shown 16 feet above the surface of the water. The generating tube is 30 inches in diameter, and the carbide charge is 3,000 lbs.

The types of buoys mentioned below are modifications of the above described buoys, the changes consisting only in shape and size.

1. No. $6\frac{1}{2}$ shallow draft gas buoy will in future be used for the same service as the No. 5 buoy, the flotation chamber consisting of two symmetrical hemispheroidal heads with a collision rail of 65 pound rail road steel riveted at the junction of the two pieces.

2. No. $8\frac{1}{2}$ standard gas buoy (see illustration) will in future be used for the same service as the No. 7 buoy. The flotation chamber is similar to that of the No. $6\frac{1}{2}$ buoy, but larger.

3. No. 11 combined gas and whistling buoy is similar in general design to the No. 9 buoy, but the flotation chamber is 11 feet in diameter and the whistle 18 inches in diameter, and the two whistling tubes 36 inches in diameter. The light will be exhibited 30 feet above the water from a gas lantern carrying a lens of either 375 m.m. or 500 m.m. diameter.

4. No. 14 combined gas and whistling buoy is designed for positions of sufficient importance to call for a lightship. The flotation chamber is elliptical in plan, with axes of 11 and $14\frac{1}{2}$ feet. The whistling tubes are 48 inches in diameter, and the whistle

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18 inches in diameter. The light will be exhibited 30 feet above the water from a gas lantern carrying a 500 m.m. lens.

It is to be noted that as the size of the gas buoys has increased so has the size of the gas lanterns and the corresponding consumption of gas and power of the light.

These lanterns of the standard Pintsch type, are made to carry lenses of 100, 200 and 300 m.m. diameter. The two latter sizes have been used in the Canadian service. The new lanterns have lenses of 375 and 500 m.m. diameter.

The lens of 500 m.m. diameter corresponds to the fourth order 375 m.m., fifth order, 300 m.m., sixth order, 200 m.m., to less than the seventh order, while the lens of 100 m.m. cannot well be classified.

The 375 m.m. lanterns will be used on all whistling buoys and eventually 300 m.m. lanterns on all standard buoys while the No. 11 gas and whistling buoys may carry 500 m.m. lanterns if the importance of the locality warrants it.

The great increase in the light power of the larger automatic buoys due to the use of acetylene and the size of gas lanterns employed, make them in reality, floating light-houses and of an order superior to many of the lighthouses in Canada.

The principal difficulty experienced in the use of acetylene for lighthouse work has been with the burners, but each season has produced changes and improvements.

It was not considered necessary to purify the acetylene used until the middle of 1905, when purifiers were added to the automatic buoys with excellent results, and station purifiers will be added to the compressing plants for the ship channel and the Montreal-Kingston Division.

The lights shown from gas buoys are occulting unless for special reasons a fixed white light is required.

Up to the introduction of acetylene lighted buoys, gas buoys were weak in power, served only a local purpose, and were easily obscured in thick or hazy weather, but the new type buoys are sufficiently powerful to provide a strong light elevated well above the sea, and can be used effectively to 'light outside the danger.'

IMPROVEMENTS IN AIDS TO NAVIGATION.

Province of Nova Scotia.

1. Approach to Halifax, outer automatic whistling buoy replaced by a combined gas and whistling buoy, with submarine bell attachment;

2. Lunenburg whistling buoy replaced by combined gas and whistling buoy;

3. Lurcher shoal, Bay of Fundy,—a combined gas and whistling buoy was placed off this shoal for experimental purposes and was left in position while the *Lurcher* lightship was withdrawn for repairs ;

4. Halifax harbour.—The following changes were made in the character of the light exhibited by gas buoys in Halifax harbour :—

Neverfail shoal,—from fixed white to occulting white ;

Thrumcap,—from fixed white to occulting red ;

Middle ground,—from fixed white to occulting white.

5. Approach to Halifax.—Inner automatic whistling buoy, a combined gas and whistling buoy was substituted for whistling buoy.

Province of New Brunswick.

1. Oak point, Miramichi river.—Pressed lens replaced by 7th order lens ;

2. Cox point, Grand Lake St. John river.—Reflector and lamps replaced by 7th order lens ;

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3. Robertson point, Grand Lake St. John river.—7th order lens substituted for reflectors and lamps ;

4. Fanjoy point Grand Lake St. John river.—7th order lens substituted for reflectors and lamps ;

5. Belloni point, Chaleur bay.—7th order lens substituted for reflectors and lamps ;

6. Drews Head, Beaver harbour, Bay of Fundy.—7th order lens substituted for reflectors and lamps ;

7. Southwest Wolfe island, Bay of Fundy.—Changed from revolving, white, catoptric to 4th order quick flashing white light with petroleum vapour illuminant ;

8. Zephyr rock, Shediac harbour, Northumberland strait.—Each autumn the department has maintained a small schooner off this rock from which lights were exhibited. In 1905 an automatic gas buoy was placed ;

9. Big Shippegan.—A new tower was erected at this station and a 4th order fixed white light will be exhibited temporarily pending the installation of permanent apparatus.

10. Gannet rock, Bay of Fundy.—The tower at this station has been raised, the old apparatus, a fixed and flashing light removed, and a second order double quick flashing light installed. The lantern is circular 10 feet 1½ inches diameter. The apparatus consists of 6 panels, each panel subtending a horizontal angle of 60° and a vertical angle of 137°. The time of one complete revolution is 45 seconds and the light has the following characteristics:—

Flash..	0,562 seconds.
Eclipse..	1,940 “
Flash..	0,562 “
Eclipse..	11,936 “
	<hr/>
	15,000 “

The illuminant is a 55 m.m. petroleum vapour installation with two wick capillary lamp as standby.

The apparatus and lantern were furnished by Chance Bros. & Co., Ltd., of Birmingham, England.

Province of Prince Edward Island.

1. Bell buoy on Fitzroy rock, Hillsborough bay, replaced by a combined gas and whistling buoy ;

2. Cape Tryon, North coast.—A temporary fixed white light installed at this lighthouse to be replaced later by a 4th order quick flashing light.

Province of Quebec—including Newfoundland.

1. Morin shoal, River St. Lawrence.—Red spar buoy replaced by steel spar gas buoy with occulting light ;

2. Red island lightship, River St. Lawrence.—A submarine bell has been installed on this lightship which strikes the lightship's number '3' every fourteen seconds ;

3. Prince shoal, mouth of Saguenay river, River St. Lawrence.—Gas buoy withdrawn and replaced by lightship carrying submarine bell which strikes the lightship's number '7' every twenty-two seconds ;

4. White island reef lightship, River St. Lawrence.—A submarine bell has been installed on this lightship which strikes the lightship's number '5' every eighteen seconds ;

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5. Belle Isle, North End.—This light—put in operation on the opening of navigation, 1905, is a second order single quick flashing light, giving one bright flash of $\frac{1}{2}$ second duration every 11 seconds. The optical portion consists of a central belt without top or bottom prisms. The lantern is polygonal. The illuminant is petroleum vapour burned under a mantle. The optical apparatus was supplied by Messrs. Chance Bros. & Co., of Birmingham, England.

6. Bryon island, Magdalen islands.—On the completion of this light a temporary revolving catoptric apparatus was installed giving one red flash and two white flashes every two minutes, the flashes attaining their greatest brilliancy every 40 seconds. A third order quadruple quick flashing light will replace this apparatus ;

7. Sandy Beach Point, Gaspé bay.—This light has been changed from a fixed white light to a sixth order occulting white light visible 6 seconds, eclipsed 4 seconds.

8. Father point, River St. Lawrence.—Gas buoy No. 27B, established off this point to indicate safe limit to which vessels can approach pilot station.

9. Martin river, River St. Lawrence.—A new tower has been erected at this station and a third order quadruple flashing light and lantern provided for the same. The apparatus consists of 4 panels, each panel subtending a horizontal angle of 60° and a vertical angle of 134° . Dioptric mirror of 600 m.m. focal distance subtending a horizontal angle of 120° and a vertical angle of 60° . A complete revolution requires 30 seconds and the following characteristic is given:—

Flash	0.512 seconds.
Eclipse	4.47 “
Flash	0.512 “
Eclipse	4.47 “
Flash	0.512 “
Eclipse	4.47 “
Flash	0.512 “
Eclipse	14.47 “

The illuminant is a 55 m.m. petroleum vapour light with a two-wick capillary lamp as standby. The lantern is circular in plan 10 feet $1\frac{1}{2}$ inches diameter. The light and lantern were supplied by Messrs. Chance Bros. and Co., Ltd., of Birmingham, England.

Province of Ontario.

1. Western islands, Georgian bay.—Fourth order fixed and flashing dioptric light changed to a 4th dioptric white light, occulted at short intervals. Illuminant, acetylene.

2. Red Rock, approach to Parry Sound, Georgian bay.—Fixed white catoptric light changed to 4th order dioptric white light occulted at short intervals. Illuminant, acetylene.

3. Gananoque Narrows, River St. Lawrence.—A steel shallow draft gas buoy replaced the barrel buoy abreast the Gananoque Narrows light.

4. Jackstraw shoal, River St. Lawrence.—Colour of light changed from fixed white to fixed red.

5. Lachine, Lake St. Louis, River St. Lawrence.—The Lachine lightship was withdrawn from this station for repairs and replaced by a gas buoy showing a fixed red light.

Province of British Columbia.

1. Green island, Chatham sound.—A new tower has been erected on Green island, and the permanent apparatus received for this station which will be erected at once. The apparatus is single flashing of the 3rd order consisting of 8 panels, each panel subtending an angle of 45° in the horizontal plane and 136° in the vertical plane. A complete revolution requires 45 seconds and the following characteristic is given, viz. :—

Flash	:787 seconds.
Eclipse	4.838 “

The lantern is circular in plan, of 10 feet 1½ in diameter, and the whole was manufactured by Messrs. Barbier, Benard & Turenne, of Paris, France.

TABLE OF DIMENSIONS OF AUTOMATIC GAS BUOYS.

Type	No. of buoys.	Draft fully charged.	Shape of flotation chamber.	Diameter of flotation chamber.	Diameter of generator tube.	Carbide charge, lbs.	Diameter of twin whistling tubes.	Diameter of whistle.	Diameter of lens of lantern.	Height of focal plane above water.
No.	5.....	6 ft.	Cylindrical	5 ft. 9 in.	24 in.	1,000	None	None	200 m.m.	7 ft. 4 in.
“	6.....	6 ft.	Cylindrical	6 ft.	24 in.	1,000	None	None	200 m.m.	7 ft. 4 in.
“	7.....	9 ft. 4 in.	Cylindrical	7 ft. 3 in.	30 in.	2,500	None	None	200 m.m.	7 ft. 6 in.
“	8½.....	10 ft. 5 in.	Spheroidal	8 ft. 6 in.	30 in.	2,500	None	None	300 m.m.	9 ft.
“	9.....	19 ft. 4 in.	Cylindrical	8 ft. 10 in.	30 in.	3,000	20 in.	10 in.	300 m.m.	15 ft. 9 in.
									or 200	
“	11.....	26 ft. 8 in.	Cylindrical	11 ft.	30 in.	3,000	36 in.	18 in.	375 m.m.	30 ft.
“	11 x 14½...	26 ft. 8 in.	Elliptical	11 ft. x 14½	30 in.	3,000	48 in.	18 in.	500 m.m.	30 ft.

	Light Stations.	Lights.	Keepers.	Fog Whistles Sirens and Diaphones.	Fog Horns.	Fog Bells.	Fog Guns or Bombs.	Gas Buoys.	Whistling Bouys.	Bell Buoys.
Province Ontario and above										
Montreal	223	301	203	12	6	4	.....	48	.....	3
Lightships	2									
Province of Quebec.....	166	239	197	10	8	1	7	63	1	1
Lightships	7									
Province of Nova Scotia....	221	232	213	12	6	2	1	6	36	23
Lightships	1									
Province of New Brunswick.	109	141	110	8	7	2	1	1	10	12
Lightships	2									
Province of P.E. Island....	41	70	47		1			1	3	1
Province of Brit. Columbia.	45	51	41	2	6	6			3	3
Lightships	1									
Province of Manitoba.....	4	4	4							
	822	1,038	837	44	34	15	9	119	53	43

(INCLOSURE B.)

LIST of Buoys maintained by the Department of Marine and Fisheries in Canadian Waters in 1905.

ONTARIO AND PORTIONS OF QUEBEC IN ONTARIO LIGHTHOUSE DISTRICT.

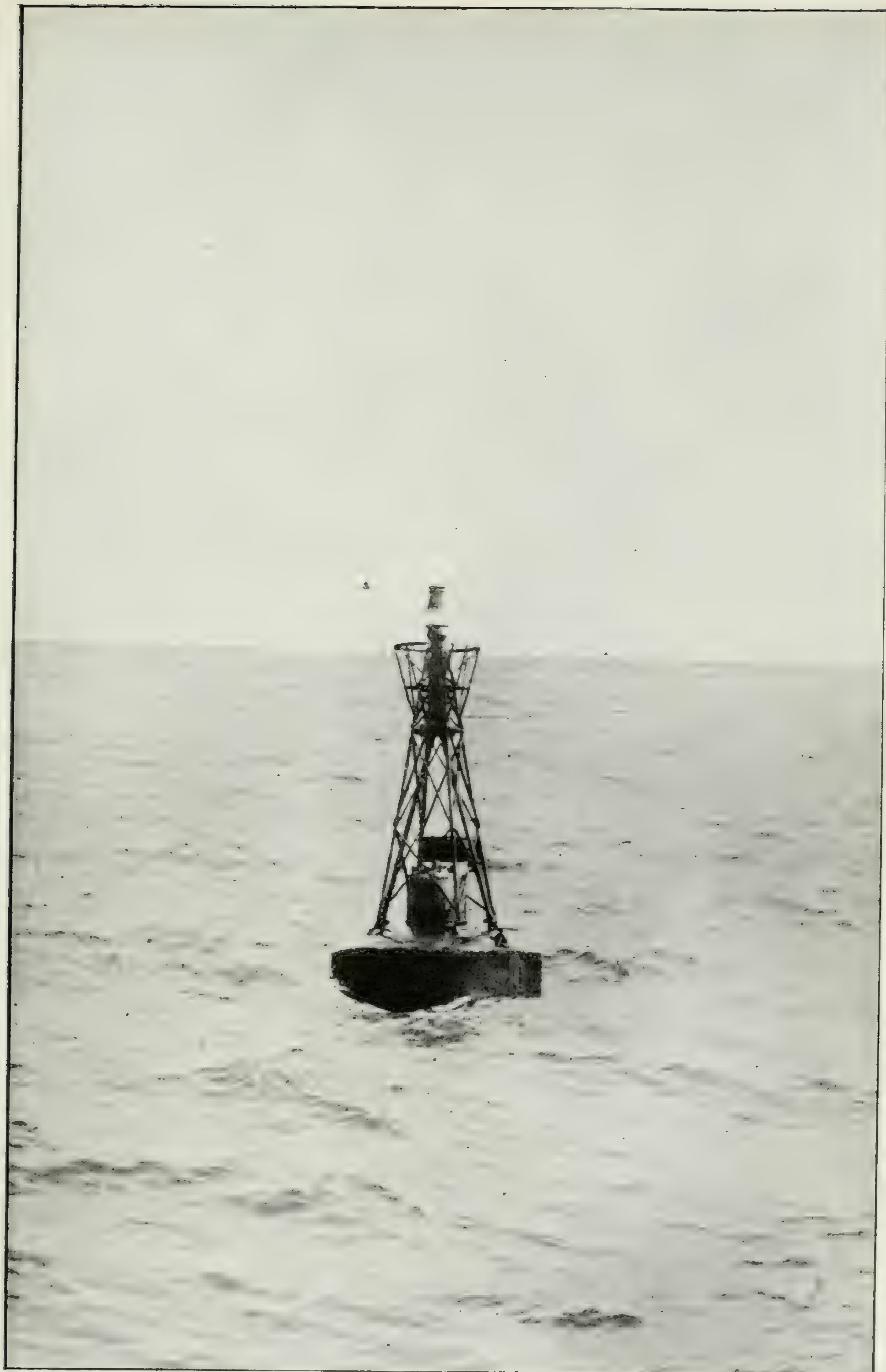
	No. of buoys.		No. of buoys.
Amherstburg, including Bois Blanc	44	Parry Sound, gas-buoys (one with bell). . . .	3
Bar point, gas buoy	1	Pelee middle ground	3
Bay of Quinté (three contracts)	32	Pembroke	20
Bears Rump	1	Pointe au Baril, beacons	15
Big Duck island, bell-buoy	1	“ buoys	4
Blind river	4	Penetanguishene	10
Byng inlet	7	Port Arthur, gas-buoys	2
Collingwood	14	Port Rowan	10
Clapperton channel	9	Port Colborne, gas-buoy	1
Georgian bay	13	Rainy river, beacons, pairs	11
“ gas-buoys	4	“ buoys	14
Goderich	2	River Thames	7
Green shoal	1	Rondeau	6
Grecian shoal	1	St. Lawrence river, Montreal to Kingston,	
Grubb reef, gas-buoy	1	spars	79
Hawkesbury	16	St. Lawrence river, Montreal to Kingston,	
Kaministiquia	20	Can-buoys	12
Lake Erie, gas-buoys	2	St. Lawrence river, Montreal to Kingston	
Lake Nipissing	32	gas-buoys	36
Lake of the Woods, including bell-buoy . .	115	Ste. Placide, stakes and buoys	52
Lake Simcoe	12	Sault Ste. Marie	20
Lake Superior, including bell-buoy	7	“ canal approaches	25
Little Current	8	Seine river and Grassy lake, piles	30
Lone rock, gas and bell-buoy	1	“ buoys	10
Midland	7	South Baymouth	4
Murray canal and Presqu’ile bay	23	Stokes bay	6
Napanee	14	Surprise shoal, bell-buoy	1
Niagara, bell-buoy	1	Trenton	13
North Sisters rock	4	Victoria Island, Lake Superior	3
Orillia	9	Waubashene	37
Pancake shoal, bell-buoy	1	Saugeen river	7
Parry Sound	27	Sturgeon river	26

QUEBEC.

	No. of buoys.		No. of buoys.
Agnes	1	North channel, Island of Orleans	12
Amherst harbour	8	Nouvelle	1
Barachois de Malbaie	1	Paspebiac	1
Bonaventure	1	Pentecost	1
Cap Chat	1	Percé	2
Cape Cove	1	Port Daniel	1
Cap Meule	1	Restigouche river	10
Carleton point	1	Richelieu river, balises	
Chicoutimi	15	“ river, to St. Johns	35
Cock point	1	“ above St. Johns	19
Chaudiere basin	7	Riviere à la Pipe, Lake St, John	8
English bay	3	“ des Prairies	10
Eschourie rock	1	Ste. Adelaide de Pabos	1
Fox river	1	Ste. Anne river	1
Gaspé	5	St. Thomas	8
Grand Entry	14	St. Lawrence river between Platon and	
Griffin cove	1	Montreal, gas buoys	40
House harbour, Magdalen islands	6	St. Lawrence river, between Platon and	
Lake St. John—		Montreal, unlighted buoys	214
River Ashuapmuchuan		Serpent reef	1
“ Mistassini		Maintained by Quebec agency, gas-buoys . .	18
“ Peribonka		Maintained by Quebec agency, gas and bell-	
Roberval harbour		buoys	5
	110 and 25 beacons.	Maintained by Quebec agency, unlighted	
Little river west	1	buoys	42
Maria	1	Maintained by Quebec agency below Quebec,	
Matane	3	bell-buoy	1
Mont Louis	1	Maintained by Quebec agency below Quebec,	
New Richmond	3	whistling-buoy	1

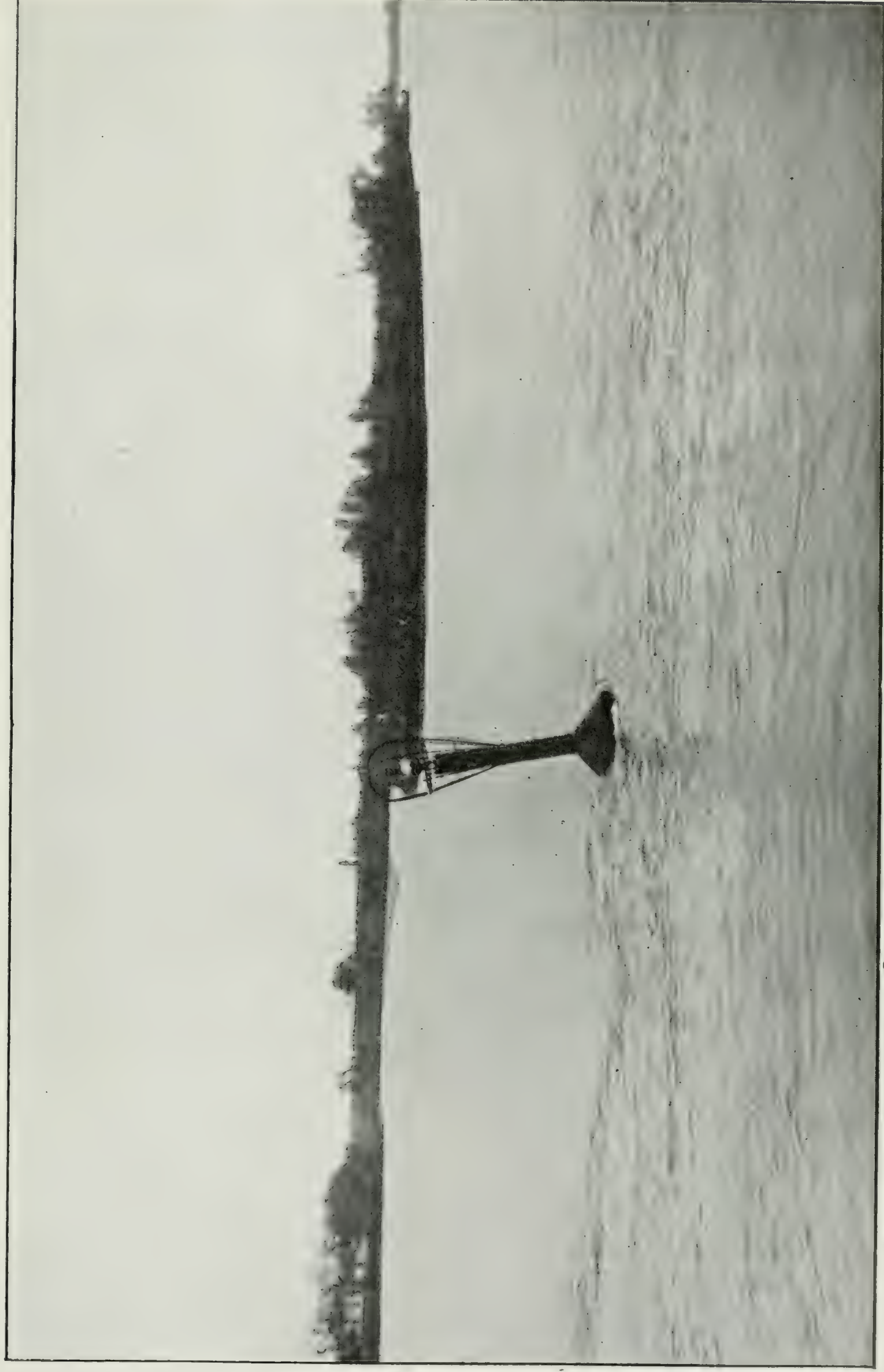
NOVA SCOTIA.

	No. of buoys.		No. of buoys.
Advocate harbour.	6	McKinnon harbour.	4
Apple river.	8	Musquodoboit.	7
Arichat.	21	Martins Brooke.	6
Argyle river and sound.	10	Northport.	12
Avon river.	6	North Sydney.	5
Barrington.	32	Parrsboro.	6
Bear river.	12	Petitdegrat.	11
Beaver harbour.	2	Pictou.	6
Blandford.	5	Popes harbour.	3
Bridgewater.	10	Port Felix.	7
Canning or Habitant river (6 dolphins)		Port Hood.	7
Canso and St. Andrews passage.	30	Port Le Tour.	12
Cape Negro or North-east harbour.	17	Port Medway.	9
Cariboo.	6	Port Morien.	2
Chester.	25	Port L'Hebert.	12
Cheticamp.	12	Pubnico.	18
Chezzetcook and Petpiswick.	6	Pugwash.	9
Christmas island and Barra strait.	11	Prospect, Lower.	10
Clarks Cove, West bay.	3	Port Mouton.	4
Clarks harbour.	17	Queensport.	3
Cockerwit pass and Woods harbour.	20	River John. (stakes)	3
Cooks cove, Toby cove.	4	Roseway.	3
Canning river.	6	St. Anns.	3
D'Escousse and Lennox passage.	25	St. Mary river.	8
Digby and Annapolis.	13	“ up to Sherbrooke.	18
Dover.	6	St. Peter's bay.	16
East bay, Bras d'Or.	2	St. Peters inlet.	10
Fourchu harbour.	11	Sambro.	11
Great Bras d'Or.	7	Shag harbour.	13
Gillis point, Boulaceet.	1	Sheet harbour.	9
Guysborough.	3	Shelburne.	10
Hay cove.	8	Ship harbour.	9
Harbour au Bouche. (6 stakes)	4	Ship rock.	1
Ingonish, South bay.	8	Shulee.	8
Isaacs harbour.	12	Smith island.	1
Indian harbour.	4	Sydney.	2
Jeddore.	9	Shag bay.	2
Judique.	1	Sober island to Ecum Secum.	21
Ketch harbour.	6	Tangier.	4
L'Ardoise.	3	Tatamagouche, 46 stakes and.	18
Lahave.	8	Terrence bay.	3
Little Narrows.	10	Tor bay.	19
Little Dover.	9	Three fathom harbour.	5
Little Bras d'Or.	2	Tidnish.	5
Liverpool.	3	Tusket (two contracts). (3 spindles)	23
Lockeport.	6	Upper Prospect.	4
Lunenburg.	9	Wallace.	15
Lunenburg, back cove.	9	West bay.	3
“ middle south.	16	West Dublin and Crooked channel.	13
Louisburg.	7	Westport.	3
Liscombe.	4	Weymouth.	13
Mabou.	12	Whitehead.	9
Mahone bay and Chester.	14	Yarmouth.	50
Main-à-Dieu.	6	Maintained by agency. (whistling-buoys)	36
Margaree harbour.	9	“ “ “ “ (bell-buoys)	27
Merigomish.	6	Maintained by agency (conical and can-	
Marie Joseph.	9	“ “ “ “ buoys.	160
Monsellier.	10	“ “ “ “ (gas-buoys).	3

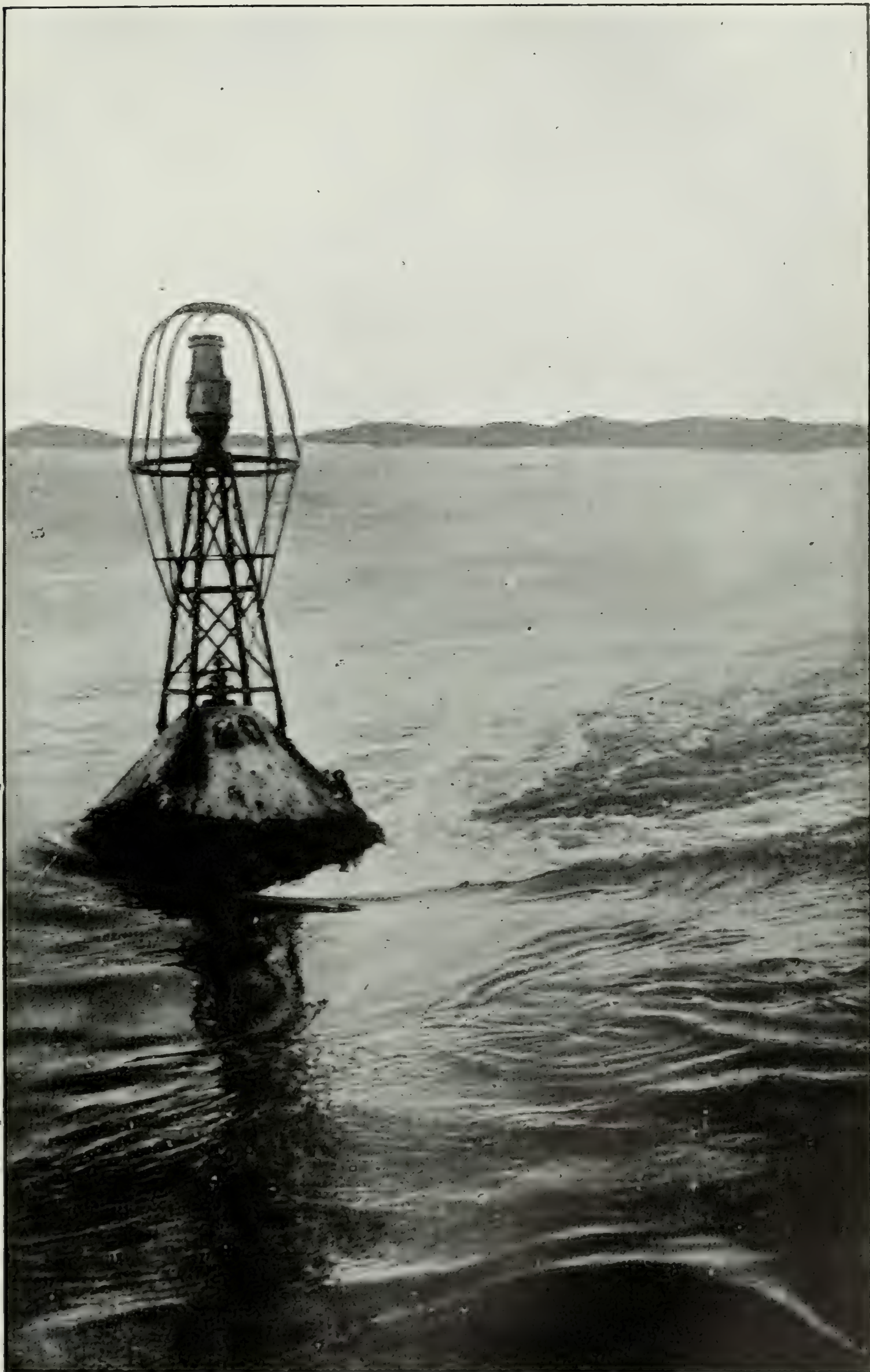


NO. 9, COMBINED GAS AND WHISTLING BUOY AT LURCHER SHOAL, BAY OF FUNDY, CANADA,
AT MAXIMUM TIDAL CURRENT, AUG. 20, 1905.

21—4a



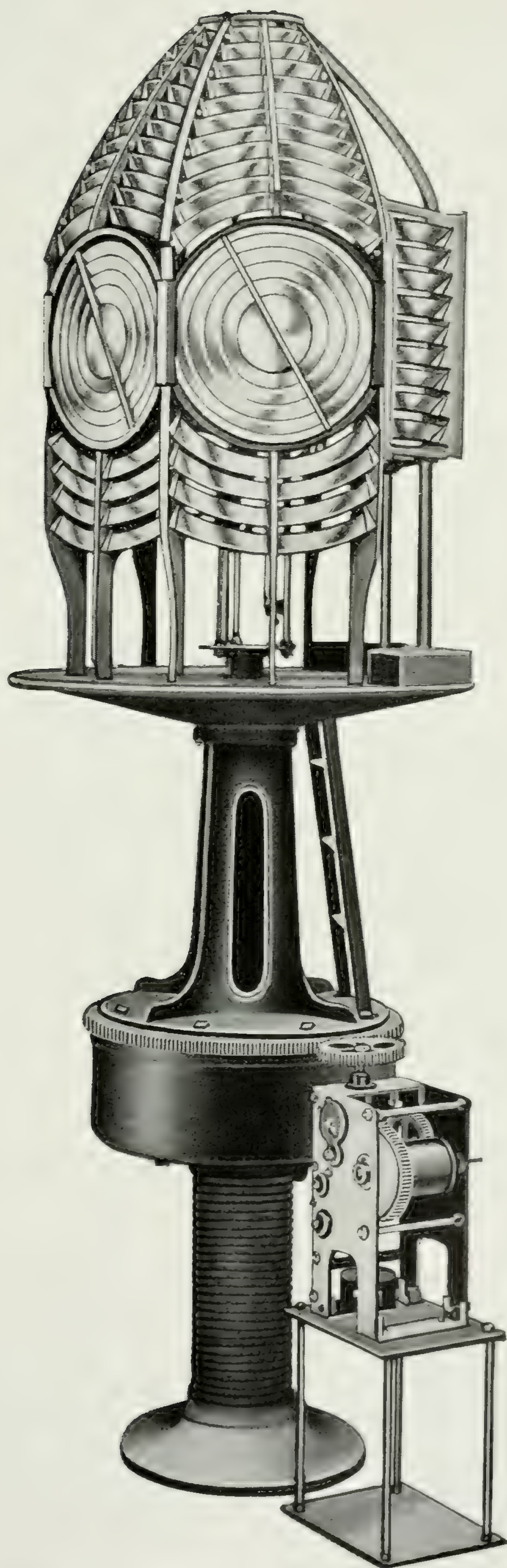
NORTH CHANNEL, UPPER ST. LAWRENCE, BELOW PRESCOTT.



MIDDLE GROUND TRAVERSE, G.B. 60—MOORED IN 8 KNOTS CURRENT, SPRING TIDE,
EQUAL TO $9\frac{1}{2}$ MILES



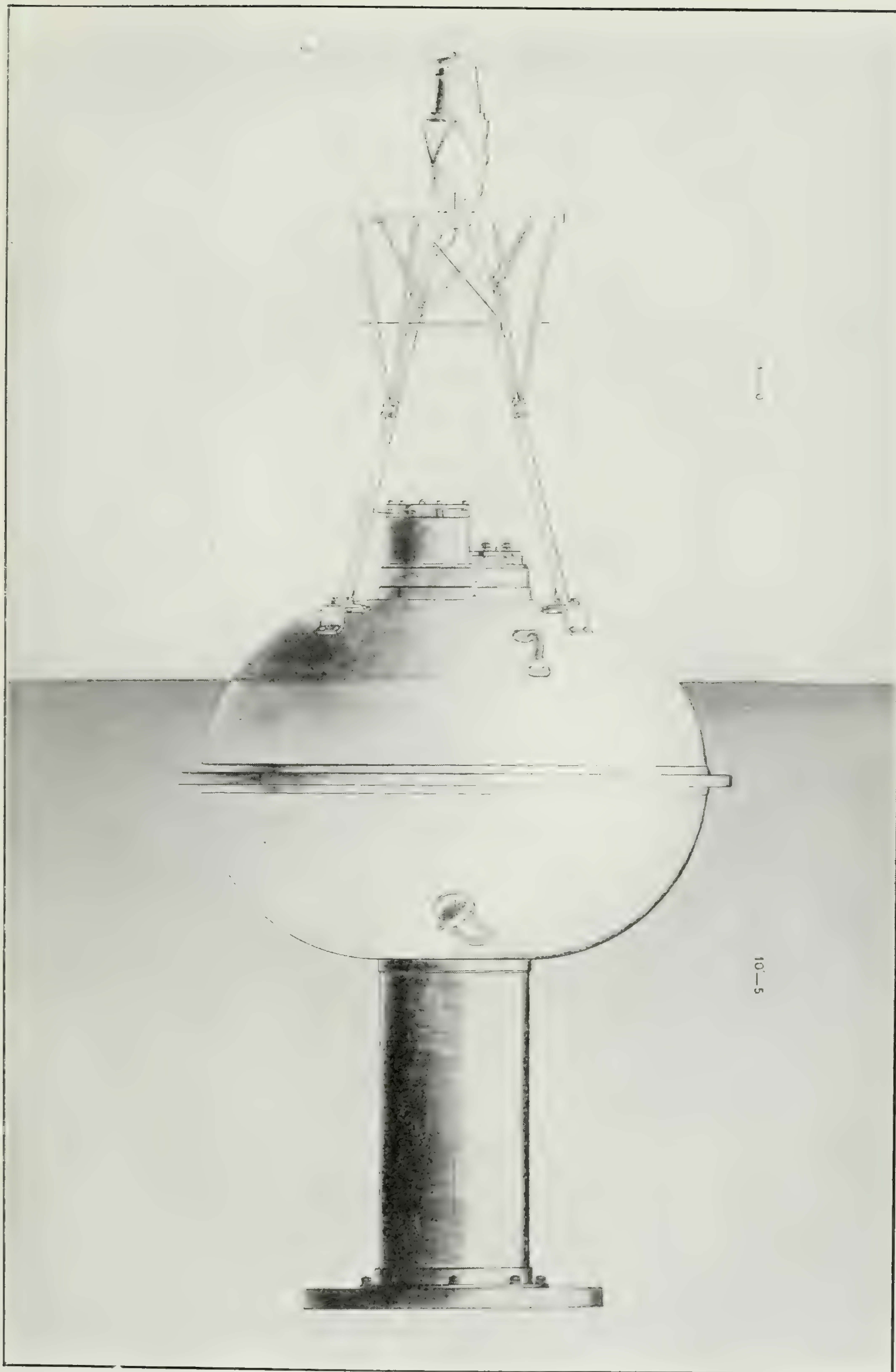
COMPARATIVE SIZE OF 10 AN - 18 INCH WHISTLE FOR BUOYS.



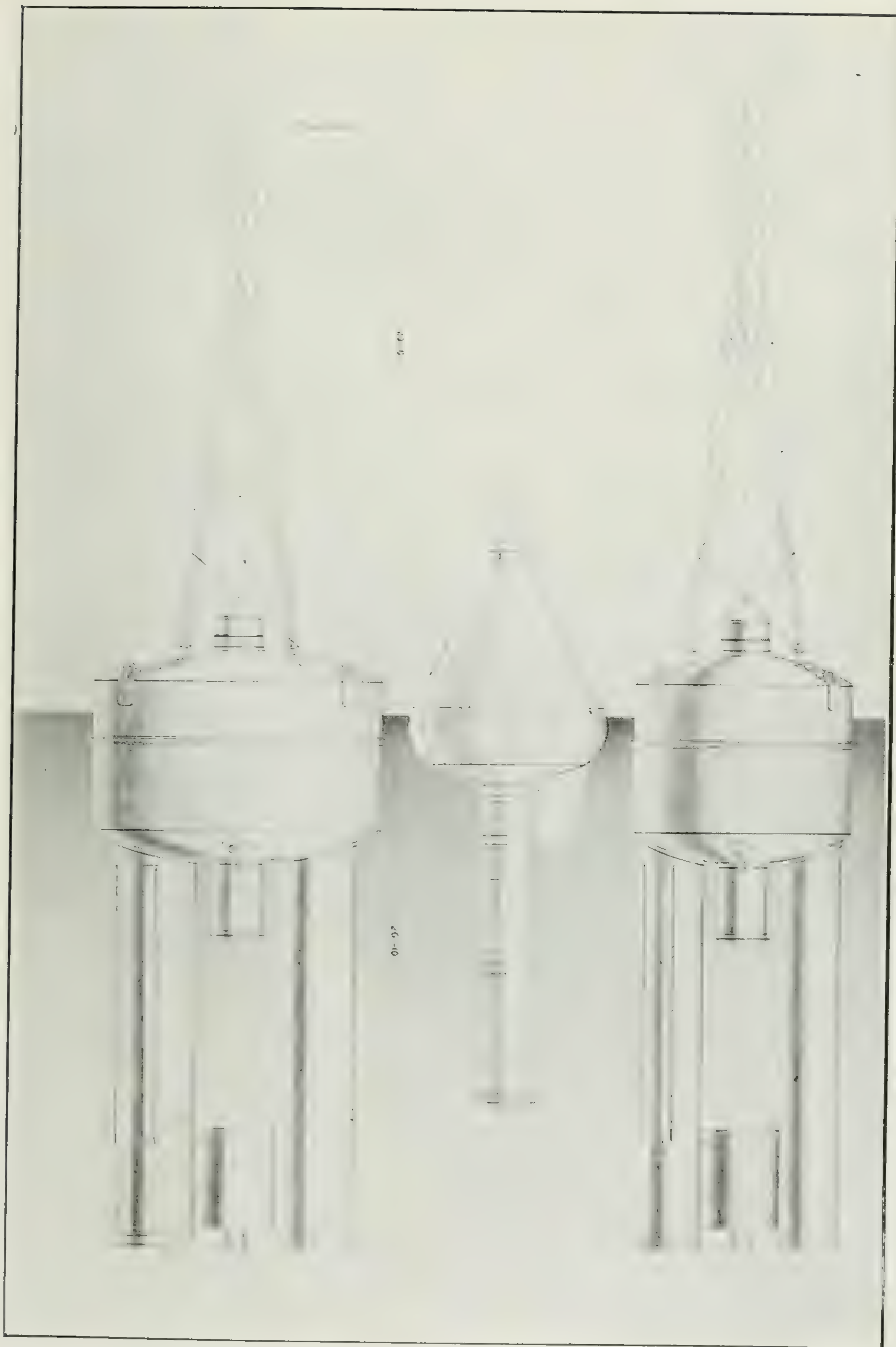
3RD ORDER QUADRUPE FLASHING LIGHT, MARTIN RIVER, P.Q.



2ND ORDER DOUBLE FLASHING LIGHT, GANNET ROCK, BAY OF FUNDY.



NO. 8 $\frac{1}{2}$ STANDARD LOW PRESSURE ACETYLENE GAS BUOY.



COMPARATIVE SIZE OF NO. 14 LIGHTSHIP GAS AND WHISTLING BUOY.
COURTENAY WHISTLING BUOY.
NO. 11 LIGHTSHIP GAS AND WHISTLING BUOY.

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NEW BRUNSWICK.

	No. of Buoys.		No. of Buoys.
Bathurst.	26	Neguac.	21
Baie Verte and Port Elgin.	36	Neil harbour.	1
Bay du Vin.	11	Napan river, 24 stakes and.	3
Beaver and Blacks harbour.	9	North-west arm, Miramichi.	14
Black brook, Miramichi river.	3	Oromocto.	7
Black Lands gully.	12	Ox island, St. John river.	5
Buctouche.	22	Petit Rocher.	2
" stakes.	32	Pisarinco.	2
" river, bushes.	200	Pokemouche.	8
Bartibogue.	13	Richibucto and Albion.	28
Campobello, 1 spindle and.	9	" Rexton and Browns yard.	30
Caraquet.	21	Shediac.	18
Cocagne, stakes, 50.	11	" north of island, 26 bushes and.	2
Dalhousie and Restigouche.	12	Shippigan, 17 pickets.	20
Didgequash.	5	St. Andrews.	15
Dipper harbour.	3	St. Croix ledge.	11
Dorchester.	3	St. John river, 155 stakes and.	68
Grande anse.	4	St. Louis, 15 bushes.	10
Grand lake and Salmon river, bushing.	73	South Tracadie Gully, 30 bushes.	5
Grand lake, new channel, bushes.		St. Simon, Bay Caraquet.	4
Grand Manan, 1 spindle and.	28	" Lightship.	1
Great Shemogue.	7	" Bell boat.	1
Hatfield Point, bushes.		Tabusintac.	18
Harvey.	7	Tracadie, 150 bushes.	11
Kouchibouguac and Black river, bushes.		Tynemouth creek.	3
Lepreau.	3	Washademoak, 147 bushes and.	2
Letite and Back bay, 1 spindle and.	14	Waweig river.	1
Little Shemogue, 1 beacon and.	5	West Isles, 4 spindles and.	23
Little Shippigan.	12	Maintained by agency.	
Magaguadavic.	13	" " (can and conical buoys).	21
Maquapit and French lakes, 20 stakes and.	4	" " (whistling buoys).	10
Miramichi.	18	" " (bell-buoys).	12
Musquash.	7		

PRINCE EDWARD ISLAND.

Bay Fortune.	3	Little channel.	3
Beach point.	3	Montague.	6
Bedeque.	11	Murray harbour, 2 stakes.	37
Brae harbour.	5	New London.	9
Cardigan, Lower.	6	Orwell and Vernon river, 36 bushes.	6
" Upper.	16	Pinette.	5
Cascumpec, 12 stakes.	14	Port Hill.	12
Charlottetown, 20 stakes.	22	Pownal.	7
Cove head.	2	Rollo bay.	3
Crapaud, stakes and.	5	Rustico.	5
East river (Hillsboro').	17	Savage harbour.	2
Egmont bay.	12	Souris.	4
" south, 8 stakes and.	2	St. Peters harbour.	10
Georgetown.	13	Summerside.	11
Goose harbour.	2	Tracadie.	3
Grand river, 1 beacon and.	12	West point.	1
" lot 14.	8	Wood island.	4
Indian rocks.	1	Maintained by agency. (signal buoys)	7
Malpeque.	16	" " (can and conical)	6
Miminegash.	6		

LIST OF BUOYS IN BRITISH COLUMBIA WATERS.

Name.	Description.
Atrevida reef, Straits of Georgia.	Spar buoy.
Alford reef, Metlakathla	Steel conical buoy.
Browning passage, Clayoquot	Three spar buoys.
Burnaby reef, Vancouver	Spar buoy.
Benmohr reef, Trincomali channel	Platform buoy.
Canteen rock, Esquimalt	Platform buoy.
Canoe pass, Fraser river	Spar buoy.
Canoe pass, Fraser river	Steel can buoy.
Carolina channel, Barkley sound.	Steel whistling buoy.
Colbourne channel	Two platform buoys.
Celia reef, Shute passage.	Steel conical buoy.
Clarke rock, inner channel.	Platform buoy.
Cortez island, Strait of Georgia.	Steel can buoy.
Darcy shoal, south end of Sydney channel.	Steel can buoy.
Departure bay	Two platform buoys.
Dorcas reef, Ballanac channel.	Spar buoy.
Dall patch, Seaforth channel	Platform buoy.
Entrance point, Satellite channel	Steel conical buoy.
Fraser river, Sandheads	Bell buoy.
Fraser river, Sandheads	Fourteen conical buoys
Fraser river.	Spar buoy.
False reef, Stuart channel.	Steel can buoy.
False Narrows, Northumberland channel	Three spar buoys.
First Narrows, Vancouver	Spar buoy.
Gossip reef, Active pass	Steel can buoy.
Harbour reef, Port Simpson.	Steel conical buoy.
Ganges harbour, One-fathom patch	Steel can buoy.
Governor rock, Trincomali channel.	Platform buoy.
Grappler rock, Houston passage.	Steel can buoy.
Hecate passage, north bank.	Platform buoy.
Hecate passage, east end	Platform buoy.
Horda rock.	Steel can buoy.
Hornby wharf.	Spar buoy.
Horsewell reef.	Steel conical buoy.
Hazel point, middle channel Skeena.	Spar buoy.
Indian reef, Stuart channel	Steel can buoy.
Johnstone reef	Steel can buoy.
Kelp bar, Comox.	Two spar buoys.
Kelp bar, Fairway.	Bell buoy.
Kootenay lake	Fourteen platform buoys.
Kootenay lake	Two spar buoys.
Ledge point reef, Broughton strait.	Spar buoy.
Lighthouse island reef.	Steel conical buoy.
Mears pit, Clayoquot.	Platform buoy.
Miami reef, Stuart channel.	Steel can buoy.
Metlakathla.	Two platform buoys.
Nanaimo harbour.	Two platform buoys.
Nanaimo harbour.	Two spar buoys.
Passage rock, Protection island.	Platform buoy.
Portier pass, Fairway	Steel can buoy.
Portier pass, Virago rock	Spar buoy.
Paterson rock, Esquimalt.	Platform buoy.
Point Grey, Fairway	Steel bell buoy.
Pender canal, Bedwell harbour.	Two spar buoys.
Rosedale reef, Race rocks.	Two spar buoys.
Rosenfelt reef	Steel conical buoy.
Rock Point.	Spar buoy.
Reef Point, Baynes sound	Two steel conical buoys.
San Juan, St. Juan de Fuca.	Steel whistling buoy.
Stubbs point, Clayoquot.	Platform buoy.
Sidney spit, east.	Steel can buoy.
Sidney spit, west	Steel conical buoy.
Sidney reef	Two spar buoys.
Sidney rock.	Platform buoy.
Skeena river	Spar buoy.
Sparrowhawk rock.	Platform buoy.
Templar channel, Clayoquot	Steel can buoy.

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LIST OF BUOYS IN BRITISH COLUMBIA WATERS—*Concluded.*

Name.	Description.
Tattenham ledge	Spar buoy.
Texada island, north point.	Spar buoy.
Tugwell reef, Metlakathla.	Spar buoy.
Ucluclet, Barkley sound	Platform buoy.
Vancouver rock, Milbank sound	Steel whistling buoy.
Victoria harbour.	Two platform buoys.
Village point, Baynes sound.	Steel conical buoy.
Victoria harbour.	Spar buoy.
Victoria rock, Trincomali channel.	Steel can buoy.
Whale rock, Esquimalt.	Spar buoy.
Whalston rock	Spar rock.
Welcome point	Spar buoy.
Walbran rock, Fitzhugh sound	Spar buoy.

LIST OF BEACONS IN BRITISH COLUMBIA WATERS.

Atkins reef, Trincomali channel	Concrete beacon.
Base flat, Baynes sound.	Single pile beacon.
Brotchy ledge.	Steel filled concrete electric light.
Beacon rock, Nanaimo.	Stone masonry beacon.
Canoe rock	Stone masonry beacon.
Danger reef, Trincomali channel.	Wooden Wigham's light.
Dyke point, Esquimalt	Wooden triangular.
Enterprise reef.	Concrete.
Escape reef, Stuart channel	Wooden conical.
False narrows, Northumberland channel.	Two single pile beacons.
First narrows, Vancouver.	Two five pile beacons.
Firts narrows, Vancouver.	Two single, south shore.
Gabriola reef.	Concrete.
Gibson landing	Concrete.
Goose spit, Comox.	Wooden conical.
Grassey point, Comox.	Single pile beacon.
Kelp reef, Haro strait	Stone masonry.
Ladysmith, Oyster harbour.	Two 3-pile beacons.
Lewis rock, Baynes passage.	Stone masonry.
Middle ground, Nanaimo	Five pile beacon.
Maple spit, Baynes sound.	Three-pile beacon.
Metlakatla.	Concrete.
North reef, Stuart channel.	Wooden conical.
Nanaimo, south entrance.	Pile Wigham's light beac'n
Nelson rock, Malaspina strait	Stone masonry.
Portier pass, Romulus rock	Four wooden beacons.
Regatta reef, Seaforth channel	Wooden conical.
Shark spit, Mary island.	Three-pile beacon.
Shark spit, Channel rock	Iron spindle with drum.
Shute reef	Concrete beacon.
Sandheads.	Five-pile beacon.
Sidney spit	Wooden conical.
Sooke harbour	Four 1-pile beacons.
Union spit, Baynes sound.	Single-pile beacon.
Victoria harbour.	Two 5-pile beacons.
Walker rock, Trincomali channel	Concrete Wigham's light.
White islet, Sechelt.	Wooden Wigham's light.
White point, Lama pass	Wooden triangular beacon
White stone, Seaforth channel.	Wooden square beacon.
Watson rock, Grenville channel.	Wooden conical on conc'te
Zero rock, Haro strait.	Concrete.
Mud bay, off Boundary.	Pile beacons as required.

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CHANGES IN BUOYS DURING 1905.

NOVA SCOTIA.

Madame island, Beak point shoal, black whistling buoy established.

Madame island, Petitdegrat inlet, bell buoy established, painted black and white vertical stripes.

Lunenburg, whistling buoy replaced by combined gas and whistling buoy, red and black horizontal bands, occulting white light.

Approach to Halifax, outer automatic whistling buoy replaced by black combined gas and whistling buoy, occulting white light. A submarine bell is attached to this buoy.

Submarine bell buoy placed alongside Sambro whistling buoy.

Submarine bell buoy placed alongside Egg island whistling buoy.

Approach to Halifax, inner automatic whistling buoy replaced by red combined gas and whistling buoy, occulting white light.

Off entrance to Shelburne harbour, whistling buoy established, black and white vertical stripes.

Halifax harbour, Neverfail shoal, gas buoy, light changed from fixed white to occulting white.

Halifax harbour, Thruncap gas buoy, light changed from fixed white to occulting red.

Halifax harbour, middleground gas buoy, light changed from fixed white to occulting white.

Off Whitehead island, south-west bull, black bell buoy established.

Off Ship harbour, Little rock, black whistling buoy established.

NEW BRUNSWICK.

Shediac harbour, Zephyr rock, black gas buoy, occulting white light, replaces lightship.

Richibucto harbour entrance, black bell buoy established.

PRINCE EDWARD ISLAND.

Fitzroy rock, bell buoy replaced by a combined red gas and whistling buoy, occulting white light.

BRITISH COLUMBIA.

Fraser river entrance, bell buoy on outer end of Sandheads replaced by lightship.

Sandheads of Fraser river, red bell buoy established.

Burrard inlet, Grey point, red bell buoy established.

Carolina channel, off Amphitrite point, red whistling buoy established.

Juan du Fuca strait, Port San Juan, red whistling buoy established.

QUEBEC.

Prince shoal, River St. Lawrence entrance to Saguenay river gas buoy replaced by lightship fitted with submarine bell.

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Father point, black gas buoy established, occulting white light.

River St. Lawrence, submarine bell fitted to Red island lightship.

River St. Lawrence, submarine bell fitted to White island lightship.

ONTARIO.

Thousand island, Gananoque Narrows, red gas buoy established, occulting white light.

SUBMARINE SIGNALS.

In the report of this branch for 1904, the history of the adoption of this new aid to navigation was outlined together with results obtained by different officers of the department with the submarine signal apparatus.

The salient features of the contract entered into between the department and the Submarine Signal Company were given and only such paragraphs of the report for the last year will be referred to as will enable the progress of the work to be noted.

Submarine signalling consists of sending warning signals through the water without the use of wires from :—

1st. A lighthouse or other shore station, by means of a bell suspended in the water connected by a cable with the lighthouse or shore station ;

2nd. By means of a bell on a lightship immersed in the water and rung either automatically by the motion of the lightship, or mechanically, or electrically.

3rd. By means of buoys operating bells in the water.

These signals are received by the ship by means of a special device which enables the direction of the sound to be obtained, and a general warning signal may be obtained by ships not fitted with special apparatus up to one mile.

At the time this system was adopted in Canada the only shore station which had been tested was at Egg rock light, Massachusetts' bay, where a 1,000 pound submarine bell was suspended 60 feet from the surface, in water 100 feet deep and maintained in operation for more than six months.

Since that date the Submarine Signal Company has erected a shore station at Point Allerton, Mass.

A submarine bell in 90 feet of water at the end of a 12,000 foot cable was suspended from a tripod.

This bell has been struck over 500,000 times without damage.

The station was inspected by the undersigned after it had been some months in operation and the ringing of the bell at the end of the cable could be clearly heard through the receivers in the station.

The station erected by the department at Chebucto Head, entrance to Halifax harbour, is completed and the duplicate bells will be laid at once.

The station building is of wood 17 x 23 feet in plan and contains the duplicate machinery for operating the bells. These are two in number worked electrically at the ends of special cables. One bell is of the open type and the second is a closed bell. Both bells are suspended from tripods on the bottom.

The bell are located 2 cables north from the inner automatic whistling buoy and 5½ cables south from Portugeese shoal and the radius of action is 5 to 6 miles.

Lat. N. 45° 31' 55".

Long. W. 63° 30' 0".

Lightship bells have been provided for the *Red Island*, *White Island* and the *Prince Shoal* lightships in addition to the *Lurcher* and *Anticosti* lightships.

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The type of bells on these lightships is similar to that used for the United States lightships, viz., the open bell, operated by steam, and suspended over the side of the lightships by chains.

The climatic conditions being more severe in Canadian waters, 'lazytongs' were substituted for chains with advantage and owing to the heavy run of tide at the *Lurcher Shoal* a pneumatic bell replaced the steam striker with advantage.

A further change will be made at this lightship and a new improved type of pneumatic bell in which the code ringing device is located on board the lightship will be substituted and this type will eventually be furnished all lightships. Control of the code ringing device will permit the lightships to signal any passing vessel equipped with receivers by using the Morse code.

The *Prince Shoal* was the last lightship of the five in eastern Canadian waters to receive this new aid.

Two special bell buoys were obtained from the Submarine Signal Company for the Atlantic coast. One has been moored off Egg island and the other off Sambro.

On the placing of a submarine bell attachment to the inner automatic lighted whistling buoy the Sambro submarine bell buoy was lifted.

The provision already made for submarine bell stations, twelve in number, may be summarized as follows :—

1. Lightships (5) *Lurcher*, *Anticosti*, *Red Island*, *White Island* and *Prince Shoal*.
2. Special submarine bell buoys (2) Egg island and Sambro.
3. Shore stations (5) Chebucto Heads and four locations examined but position not finally decided.

In addition to the above an important series of experiments carried out in Halifax harbour has demonstrated that a submarine bell may be attached to the new type lighted signal buoys by the use of a simple device to increase the power of the wave motion on the bell mechanism which enables these buoys to be used as a suitable platform to carry the bell.

This arrangement eliminates the necessity of a special buoy for the purpose of carrying the submarine bell and adds another signal to the lighted whistling buoys.

In the buoys designed by the Submarine Signal Company a sea anchor composed of two discs arranged like a spool moves on a vertical spindle extending downwards in the prolongation of the axis of the buoy body. As the buoy rises and falls in the sea-way the spool is retarded and the force accumulated to ring the bell.

The automatic lighted whistling buoys carry twin whistling tubes 4 feet 2 inches apart and at the lower end of these tubes and between them a cylindrical receptacle open at both ends has been placed.

In this receptacle the sea anchor moves, confining the column of water operating against the sea anchor, increases the power materially.

The radius of action of the special submarine bell buoys is about 3 to 3½ miles.

The bell attached to the inner automatic lighted whistling buoy, Halifax harbour, has a radius of action of 6 miles.

It was considered probable that the special submarine bell buoy would ring in very moderate weather while the bell on the heavier lighted signal buoy would not operate.

In order to test this, two lighted whistling buoys, one with submarine bell attached, were moored close together in Halifax harbour near the dock of the Dartmouth depot.

Although the swell was scarcely perceptible the whistles sounded and gave results equal as far as could be observed, and at the same time the bell rang at intervals varying from 15 seconds to one minute, the shorter intervals being the more frequent. Returning to the dock at Halifax the bell was heard distinctly through a portable receiver dropped off the end of the wharf, a distance of about a mile from the bell.

In their contract with the department, the Submarine Signal Co. agreed to come to terms with the owners of thirty ships making and entering Canadian ports and install their apparatus on the ships.

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Eighteen steamers have received this equipment and the department is informed that on or before the opening of navigation, 1906, that the necessary thirty ships will be ready.

The Submarine Signal Co. advise that the following is a list of sound-producing stations established:—

UNITED STATES.

Cape Elizabeth lightship.
Boston lightship.
Pollock Rip Shoal lightship.
Vineyard Sound lightship.
Nantucket Shoal lightship,

Brenton Reef lightship.
Cornfield Point lightship.
Fire Island lightship.
Sandy Hook lightship.
Overfalls lightship.

CANADA.

Prince Shoal lightship.
Red Island lightship.
White Island Reef lightship.
Anticosti lightship.
Lurcher Shoals lightship.

Egg Island bell buoy.
Sambro bell buoy.
Halifax Harbour bell buoy.
Chebucto Head shore station.

GERMANY.

Kiel Harbour lightship.
Outer Weser lightship.

Elbe River lightship.

ENGLAND.

Northwest lightship (Liverpool). North Goodwin Lightship (Dover Straits).

The list given below indicates the steamers equipped with submarine receiving apparatus:—

North German Lloyd Line.—*Kaiser Wilhelm II, Kaiser Wilhelm der Grosse, Kronprinz Wilhelm, Seeadler.*

Canadian Pacific Line.—*Mount Temple, Montcalm, Lake Manitoba.*

Hamburg American Line.—*Deutschland, Amerika.*

Metropolitan Line.—*J. S. Whitney, H. M. Whitney, Herman Winter, H. P. Dimock.*

White Star Line.—*Baltic, Oceanic, Republic.*

Boston and Philadelphia.—*Indian.*

Cunard Line.—*Lucania, Ivernia, Saxonia, Campania, Caronia, Carmania.*

Merchants and Miners Trans.—*Nantucket.*

Plant Line.—*Halifax.*

French Line.—*La Savoie.*

Red Cross Line.—*Rosalind, Silvia.*

United States Government.—*Maine, Alabama, Mayflower, Larkspur, Iris, Shark.*

Eastern SS. Co.—*St. Croix, Calvin Austin, Cov. Cobb.*

Holliday Bros.—*Aranmore, King Edward.*

Canadian Government.—*Canada, Lady Laurier, Lansdowne, Minto, Stanley.*

Campbell & Co.—*Strathcona, Dufferin.*

English Government.—*Irene, Vigilant.*

King Tow Boat Co.—*Gypsum King.*

Standard Oil Co.—*Standard.*

German Government.—*Wik.*

Commercial Cable Co.—*Mackey-Bennett.*

Pilot Boats, Boston.—*America, Louise, Liberty, Varuna.*

New York.—*New York, New Jersey, Washington, Hermit, Ambrose Snow.*

Philadelphia.—*Philadelphia.*

Fishing Schooners.—*Mary E. Harty, Arkona.*

Steam Yachts.—*Corsair, Chipeta, Atlantic, Aria.*

APPENDIX No. 3.

MARINE AND FISHERIES. CANADA.

RIVER ST. LAWRENCE SHIP CHANNEL,
OTTAWA, ONT., December 14, 1905.

SIR,—According to your instructions, I beg to present the following annual report on the operations for the improvement of the River St. Lawrence Ship Channel during the fiscal year ended June 30, 1905.

As this matter appears for the first time in the report of the Minister of Marine and Fisheries, a more detailed and general description of the ship channel, and of the operations for improvement, is given.

The project now includes the work below Quebec, which is to be undertaken in 1907, for which a large dredge is now under construction at Sorel.

By request, photographic illustrations showing the type and details of the characteristic vessels of the dredging fleet are also given with this report.

I have the honour to be, sir,

Yours obediently,

F. W. COWIE,

Superintending Engineer.

Lieutenant-Colonel F. GOURDEAU,

Deputy Minister of Marine and Fisheries,
Ottawa, Ont.

RIVER ST. LAWRENCE SHIP CHANNEL.

INTRODUCTION.

By Order in Council of March 11, 1904, on a report from the Right Honourable the President of the Privy Council, with a view of systematizing and facilitating the work : the hydrographic surveys, the management and control of the River St. Lawrence Ship Channel together with the dredging and ship-building plant, were transferred at the close of that fiscal year to the Department of Marine and Fisheries, so as to place the supervision of the improvements to navigation on the St. Lawrence Route under the department directly responsible for the Pilotage and Aids to Navigation.

For the first time, therefore, the annual report of the River St. Lawrence Ship Channel appears in the report of the Honourable the Minister of Marine and Fisheries, the work now being conducted under the Department directly pertaining to navigation.

Previous reports, in connection with the ship channel, with the history of the operations, the tables of results and the cost of the work, will be found in the Annual Reports of the Minister of Public Works, the last being Appendix to Part IV, in the report of the Chief Engineer of that department, for the fiscal year ended June 30, 1904.

PHYSICAL FEATURES.

For many years the 'Ship Channel' has been described as being between Montreal and Quebec.

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Artificial navigation or dredged channels do not, so far, exist below Quebec. The depth at low tide, however, over the St. Thomas shoals, is only 24 feet and on the Beaujeu Bank only 20 feet.

The improvement, by dredging, of navigation in these localities having been undertaken by the Department, and a more systematic supervision of the contracted river channel down as far as below the St. Roch Traverse, 65 miles below Quebec, having been urged; the limits of the River St. Lawrence Ship Channel have been extended and now include all the River St. Lawrence between Montreal and The Traverse, a total distance of 225 miles.

From Montreal to Three Rivers, 82 miles, there is practically no tide.

From Three Rivers to Batiscan, 20 miles, the tide can always be felt, but owing to uncertainty of time and height, it cannot be depended upon for navigation.

From Batiscan to Portneuf, 22 miles, during six hours out of twelve, half-tide giving an additional depth of from $1\frac{1}{2}$ to 4 feet, may be taken advantage of, by passing during those six hours.

From Portneuf to Quebec, 36 miles, there is a tide of from 9 to 15 feet, giving tidal navigation for about nine hours out of every twelve.

From Quebec to Crane Island, 40 miles, the tide is 13 feet at Springs and 18 feet at Neaps and as there is a depth of 20 feet at the Beaujeu Bank, at extreme low water, there is navigation, therefore, in this division, of from 33 to 38 feet at high tide or $26\frac{1}{2}$ to 29 feet at half-tide.

The water in the river has a very great annual fluctuation. The average height above ordinary low water is for May, $6\frac{1}{2}$ feet; June, $4\frac{1}{2}$ feet; July, $3\frac{3}{4}$ feet; August, $1\frac{3}{4}$ feet; September, 1 foot; October, $\frac{1}{2}$ foot; November, $\frac{3}{4}$ foot.

The current varies throughout. It is strongest at the St. Mary's Current in Montreal Harbour, at Cap à la Roche, at the Richelieu Rapids, and at the St. Roch Traverse. It is quite gentle in Lake St. Peter. The general average is about $2\frac{1}{2}$ miles per hour.

The River St. Lawrence between Quebec and Montreal is usually free from ice about April 10, and closed to traffic about November 25, making the season of navigation about $7\frac{1}{2}$ months.

The river is particularly adapted for improvement. The water is almost free from matter in suspension which may deposit itself in excavated channels and fill them up. The river bottom is almost everywhere of such a character that when a cut is once made it remains unchanged. There are many difficulties such as hard material, strong currents, bad weather; but no dredging work in the world can show better results, or more permanence.

DIVISIONS.

The Ship Channel, for the purposes of organization and details, has been divided into five divisions:—

Division I, Montreal to Sorel.

The eastern limit of that part of Montreal Harbour under the Harbour Commissioners extends to Longue Pointe, about six miles below the Montreal Custom House. Formerly this limit was opposite Ruisseau Migeon at Maisonneuve. Since the extension of Montreal Harbour to Longue Pointe, the dredging of the Ship Channel, as undertaken by the government, commenced at Longue Pointe. The Longueuil shoal situated just below the St. Mary's Current, opposite Maisonneuve, was not therefore included in the Project of 1899, although the dredging at that point, as formerly conducted by the Montreal Harbour Commissioners, was included in the Ship Channel operations.

At the earnest request of the Shipping Federation of Canada, the dredging of this shoal has this year been undertaken by the Department, and included in the work

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of improvements of the Ship Channel. Owing to strong current and the very hard material, the Harbour Commissioners could not do the work suitably with their own plant, and in order to make available the improved navigation of the Ship Channel, the deepening of Longueuil cut could not longer be delayed.

Last year's announcement of the completion of the work in Division I, must, therefore, now be amended. Work at Longueuil was commenced in August, 1905, and two powerful dredges will be required most of next season to complete it.

The addition of this work will add $1\frac{1}{2}$ mile to the total length formerly given as requiring improvement.

Division II, Sorel to Batiscan.

Except for the addition of the unexpected work at Longueuil, the completion of all the work in this division was expected to have been announced in this report. There remains, however, about three months' work to complete the dredging in this division, which extends to the head of available tide water.

Division III, Lake St. Peter.

The channel through Lake St. Peter is being left entirely to the powerful hydraulic dredge *J. Israël Tarte* (No. 7).

The length of dredging in one stretch is 18 miles. In this distance over $13\frac{1}{2}$ miles have been deepened to 30 feet, with the three important curves widened to 600 feet.

It is expected that before the 30-foot depth is completed at Longueuil it will also be available through Lake St. Peter.

Division IV, Batiscan to Quebec.

From Batiscan to Quebec, a distance of about 60 miles, improvements require to be made over a length of about 10 miles, one mile of which is already completed to the 30-foot depth.

In this division there are about four miles of work to be done, at Cap à la Roche and Cap Charles, mostly in solid shale rock.

This is one of the most important and difficult sections of the Ship Channel work and the organization is now being planned to commence operations there in 1906.

The channel plant is particularly well adapted for this work, the only question being the fact that even with the six elevator dredges the work will not be completed, as was expected, before the arrival of the 15,000 ton ships.

In consideration of the fairly soft character of the shale rock, of the strong current and of the fact that the work must be carried on without interrupting navigation, the elevator dredge is by far the most economical and efficient machine known. A powerful spoon dredge may tear up a certain quantity of soft rock more quickly, without stopping to make a clean even bottom, chisel cutters and blasting plants may break up harder material, but taking everything into consideration the type of plant in the possession of the Department is particularly well designed for good clean work, without interrupting navigation.

The Shipping Federation of Canada is now asking for one or two additional dredges in order to have the whole work of both widening and deepening completed in a proportionately shorter period of time.

THE RIVER ST. LAWRENCE SHIP CHANNEL BELOW QUEBEC.

Division V, Quebec to the Traverse.

The 30-foot channel at low water between Quebec and Montreal is now well on towards completion. In two or three years we will have vessels sailing between these

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places at all stages of the tide, while below Quebec, until improvements are made, they will require to wait so as to pass the St. Thomas and Crane Island shoals at from half to full tide.

In the spring of 1901, the matter was brought to the attention of the Honourable the Minister of Public Works by the shipping interests of Montreal. The officers of the Marine and Fisheries Department at Quebec, who had an intimate knowledge of this part of the river, strongly recommended for improvement the North Channel, commencing below the Island of Orleans, as being better, more easily navigated and more clear of ice in winter.

Orders were given to the Ship Channel staff to make a survey and examination of the North Channel with a view to reporting on the practicability and cost of improving that route and adopting it for navigation.

In 1902, a similar survey was made of the South Channel, to ascertain what improvements would be required to make a good 30-foot channel on the line of the present route.

A comprehensive report was made on February 24, 1903, to the Acting Chief Engineer of the Public Works Department, on the question of the proposed improvements below Quebec.

It was reported, by the present Superintending Engineer for the Marine and Fisheries Department, that all the improvements required by dredging are, by either the north or south channels, between St. Jean, Ile d'Orléans, and opposite Murray Bay.

The dredger required for either would be practically the same, the material everywhere being soft.

It was estimated that for either route, the cost, including the required plant, to give a 30-foot channel 1,000 feet wide, would be about \$1,000,000, and it was urged that immediate steps should be taken to provide the dredger, which would require a year and a half to build.

The report did not recommend the adoption of either route but advised that the choice should meet with the approval of the Underwriters, the shipping Interests, and the Pilots.

The Transportation Commission visited the locality, going over each channel, and took evidence on the subject. It is hoped that they will go further into the question and give an opinion.

The decision as to the best channel need not be decided at once, but it was gathered from the discussion that it would not be wise to change the route at present.

It has therefore been decided to commence improving the South Channel, by dredging a channel as wide as can be made in one cut and to a depth of 30 feet at extreme low tide, in direct straight tangents which can be marked by powerful range lights. This, it is expected, can be completed in two seasons. By that time it can be finally decided whether to complete the South Channel to a width of 1,000 feet, or to undertake the North Channel, which, it is generally conceded, taking everything into consideration, would make the best route.

The general report of February 24, 1903, on the Proposed Improvements to Navigation below Quebec, covers the following subjects:—

Physical Features.

Present Navigation to Québec.

General Information.

Preliminary Examination.

North Channel—

Survey, 1901, with soundings, borings, &c.

Estimated quantity of sand to be removed, 8,000,000 cubic yards.

Question of Permanance.

Report by Doctor Robert Bell, Acting Director, Geological Survey.

Project of Dredging.

Estimated cost, \$1,000,000.

The Quarantine Station.

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South Channel—

Survey of 1902.

Improvements.

Dredging.

Estimated cost, \$1,000,000.

Choice of Route.

Plant and Organization.

Specification of North Channel Improvements.

Specification of South Channel Improvements.

It is proposed to construct the dredge at the Government works at Sorel.

At the last session of parliament an amount was voted, on account of material and labour, towards the construction of a sea-going, steel, twin-screw, suction, hopper dredge, for improvements to the River St. Lawrence Ship Channel below Quebec, to be constructed at the Government Ship Yard at Sorel, at an estimated cost of \$350,000.

The ship channel elevator dredges have a world wide reputation. They have all been designed and constructed at Sorel. One of the reasons for their success is because they are built of massive strength, with good material and careful workmanship. They are not competitive construction, neither are they cheap, but it would be difficult to find another plant that would excavate in one year 6,500,000 yards, some of hard material, at an average of 4 cents per yard.

In designing this new dredge, the features that have given trouble in the other suction dredge have been modified and it is hoped that good results will be obtained.

The hull and general construction has been commenced at the Government's Ship Yard at Sorel.

It is estimated that this dredge will be completed and ready to commence operations in the spring of 1907.

PRESENT NAVIGATION.

The depth of water available for navigation in the ship channel is still governed by the few uncompleted portions of the 30 foot channel, between Montreal and Batis-can.

From Batiscan to Quebec and outwards the tide is more or less available and by waiting for high tide, as indicated by semaphores, an increased draught may be carried.

Between Montreal and Batiscan, including Longueuil, in the distance of 100 miles, about $53\frac{1}{2}$ miles required dredging. All of this has been deepened to 30 feet at the extreme low water of 1897, except 0.70 mile at Longueuil, 0.50 mile at Sorel, 4.60 miles in Lake St. Peter, 0.20 mile at Champlain curve and 0.60 mile opposite Batiscan.

At Longueuil there is room for only two dredges. The material is very hard and irregular, with seams of rock. It will take almost the whole of next season to complete it.

In the same time the work in Lake St. Peter, by leaving some of the widening, as well as the other small uncompleted portions, can be finished.

Although, therefore, the present depth of water, as given from day to day from the Sorel gauge, indicates the depth over these shoals, the benefit to navigation is very great, as vessels load to the limit and pass the bars very carefully and with engines almost stopped, so that they have very little 'dip,' and make greatly increased speed in the deepened and widened channels.

As the dredging in the different localities is completed, modern, powerful, permanent, range lights and gas buoys are established. This makes the channel safe for a great deal of night running, especially for vessels upward bound. The ships sailing from Montreal usually fix dates ahead and sail in the morning, so as to pass the difficult places during daylight.

Since the completion of the extensive improvements and the establishment of modern lights, many upward bound vessels which, formerly, were obliged to anchor

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for the night, now continue up to their dock at Montreal. The R.M.S. *Tunisian*, for example, one of the largest vessels on the St. Lawrence route, left Quebec after dark, during the month of October last, and actually reached Montreal shortly after daylight the next morning. Freight ships, with smaller crews, and more time between trips, do not require to take advantage of it so much, but a few hours to a mail and passenger ship and to the coal carriers means a great deal.

The depth of water in the 27½-foot channel was somewhat lower than last year, the lowest, late in November, having reached one foot below the lowest of last year. Except, however, for two or three days late in November, it did not go below the ordinary low stage, and at no time reached within one foot of the extreme low water of 1897. The depth in the 30-foot channel was consequently never less than 31 feet.

The average depth of water available for navigation with the greatest and least depths in each year, from May to November, since 1890, is given in the following table:—

YEAR.	AVERAGE DEPTH FOR EACH MONTH.							FROM SOREL GAUGE DURING EACH YEAR, MAY TO NOVEMBER.	
	May.	June.	July.	August.	Sept.	Oct.	Nov.	Highest.	Lowest.
	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.
1890	35 6	35 3	31 9	30 6	30 9	29 9	30 6	37 0	29 0
1891	34 6	31 3	29 9	29 9	30 0	28 3	28 3	36 9	27 3
1892	31 0	31 9	31 6	30 6	28 9	28 3	28 3	33 6	27 3
1893	36 0	34 3	30 9	29 9	29 6	28 6	28 0	37 6	27 6
1894	34 6	31 9	31 0	29 2	28 3	28 9	29 0	36 0	27 7
1895	33 3	31 3	28 3	28 3	27 6	26 9	26 9	34 6	25 10
1896	33 6	30 6	28 9	28 0	27 6	27 9	29 0	37 0	27 4
1897	35 6	32 6	30 3	29 3	28 0	27 0	27 6	37 0	26 5
1898	31 6	30 9	29 8	28 6	28 2	28 3	28 6	32 1	26 9
1899	36 2	31 9	30 3	28 6	27 6	28 0	27 9	37 9	26 9
1900	33 6	30 9	30 6	29 6	28 1	28 9	29 2	35 9	27 4
1901	34 3	31 10	29 2	28 3	27 7	27 4	27 3	36 3	26 6
1902	32 2	32 2	32 2	29 4	28 1	28 1	29 0	34 1	27 6
1903	33 0	30 11	30 5	29 5	28 4	29 0	27 11	32 8	26 11
1904	36 3	34 5	30 9	29 5	29 5	30 4	29 3	37 4	28 1
1905	31 10	30 8	29 7	29 0	28 0	28 5	28 1	33 6	27 1

ACCIDENTS.

The season of 1905 will be a memorable one on account of the number and seriousness of the casualties.

There are, however, causes for thankfulness and satisfaction in that there was no loss of life and, so far, no total loss of vessel.

Of the accidents to sea-going vessels, not one was in any way due to the Ship Channel proper.

Most of the casualties occurred at places where dredging has not been done or required; owing to unavoidable ‘accident,’ faulty navigation or machinery.

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The following is a list of the accidents in the St. Lawrence, including Montreal Harbour:—

Name of Vessel.	Date.	Depth of water in Ship Channel at Locality.		Locality.	Remarks.
	1905.	Ft.	In.		
SS. <i>Tampican</i>	July 12..	29	5	Montreal Harbour	Grounded on shoal. Damage slight.
SS. <i>Agnar</i>	" 17..	30	9	" . . .	Grounded near Longue Pointe. No damage.
SS. <i>Corinthian</i>	" 27..	29	1	" ..	Grounded. Hawser of tug breaking. Slight damage.
SS. <i>Polino</i>	Aug. 1..	29	6	Ship Channel, Bécancour . . .	Draught 12 ft. Out of course at night. No damage.
R.M.S. <i>Victorian</i> . . .	Sept. 1..	34	0	Ship Channel, Cap Charles.	Grounded on edge of dredged cut in fog.
SS. <i>Virginian</i>	" 1..			Below Quebec, Crane Island.	Grounded and filled. Heavy damage.
SS. <i>Wastwater</i>	" 14..			Below Quebec, Anticosti.	Grounded in fog, according to reports.
SS. <i>Universe</i> vs. barge <i>Bath</i> , in tow of str. <i>Bay State</i> and M.H.C. dredges.	" 29..	28	10	Montreal Harbour.	Collision. M.H.C. dredge was sunk.
SS. <i>Euphemia</i> and <i>Tordenskjold</i> .	Oct. 23..	50	0	Ship Channel, St. Antoine.	Collision. Channel $\frac{3}{4}$ mile wide.
R.M.S. <i>Bavarian</i> . . .	Nov. 3..			Below Quebec, Wye Rock, near St. Thomas	One-half mile south of channel. Pilot suspended.
SS. <i>Angola</i>	" 21..	27	6	Montreal Harbour.	Grounded at Longue Pointe in fog. No damage.

It will be seen that of the 11 casualties to vessels of over 10 feet draught, 5 occurred in Montreal Harbour, 3 in the St. Lawrence Ship Channel between Montreal and Quebec and 3 below Quebec.

Of the accidents in the Harbour of Montreal, 3 occurred at points where the channel does not require dredging, the fourth on the departure of the *Tampican* from her dock to proceed to sea, and the fifth was a collision.

Between Montreal and Quebec, the *Polino* went ashore at night without having a licensed pilot aboard. The *Victorian* went ashore in a fog, under very bad conditions, at one of the very worst places, on a rock bottom, and, by a splendid example of wrecking, she was floated and was able to proceed under her own steam. The third accident was a collision at night at a point where the channel is $\frac{3}{4}$ mile wide and 50 feet deep.

Of the three accidents below Quebec, one was at Anticosti and the other two were within 40 miles of Quebec. In one case the ship struck and filled, but was subsequently floated with heavy damage, and, in the other, the ship went over half a mile out of her course and struck Wye Rock, where she now remains in a dangerous position.

Therefore, with the possible exception that if the channel at Cap Charles had been widened from 300 to 450 feet, as proposed, the *Victorian* would have had more chances of going through in the fog, on a compass course, no amount of dredging would have averted any of the accidents between Montreal Harbour and Quebec. It would therefore appear that the Ship Channel has come in for more than its share of blame, especially when it is considered that over 1,200 sea-going vessels passed both up and down during the season.

GENERAL INFORMATION.

Although, with the exception of some minor shoals at Champlain, there is practically no filling in, and although, since its commencement, no actual boulders have

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been known to have been carried into the dredged channel, as such conditions are possible, it has been decided that once a year the dredged and shallow channels shall be swept.

This is a large problem. The work has to be done with very great care and good weather conditions are required.

Mr. N. B. McLean, C.E., with an assistant, were specially detailed for this important work. A twin screw river steamer and a testing scow make up the present sweeping plant. When the channel was 300 feet wide and only 60 miles required sweeping, this plant was sufficient. The work below Batiscan, including Cap à la Roche, where the weather is bad and the current strong, was then left until mid-summer.

As the lower portions of the river are considered most liable to be obstructed, and as vessels were reported to have touched, several cases of additional sweeping have been called for in early spring and late autumn. It is almost impossible to do the work with the present plant. A general purpose steamer, large and powerful enough to carry the sweeping apparatus aboard and to be independent of weather conditions, deep water, and strong current, has been repeatedly asked for to enable the sweeping to be done in the exposed places above and below Quebec. This sweeping tug is also required for other purposes, towing dredges and safeguarding navigation, buoys, &c., in the autumn.

During the course of the sweeping, in 1905, no obstruction of any serious nature was found. Two or three vessels were reported to have touched, both above and below Quebec, but the most careful examination failed to reveal anything in the channel.

Two semaphores, indicating the channel depths in their respective localities, were maintained as usual, the one at St. Jean des Chaillons for the depth in the Cap à la Roche dredged cut, and the other at St. Nicholas for the depth over the undredged St. Augustin Bar.

The season of 1905 was a record one for both the number of vessels, the total tonnage and the maximum size of vessels coming to Montreal.

From the latest information the number of sea-going vessels reaching Montreal, in 1905, was 833, or over $4\frac{1}{2}$ per cent more than last year.

The total ocean-going tonnage for the season reached 1,940,056 tons, also an increase of over $4\frac{1}{2}$ per cent.

The coal traffic from the lower ports to the St. Lawrence also showed a slight increase over last year.

The ocean-going and coasting ships to Montreal, therefore, together numbered over 1,200, or about 7 for each day of the season.

Seven vessels up and seven down, in the Ship Channel, together with the river craft of all sorts, makes quite a substantial traffic, or as much as 50 loaded railway freight trains per day, each way, without counting the passenger traffic.

This on a highway which, with plant, has only cost \$8,500,000, or about \$50,000 per mile, the same as a first-class railroad, and costing at the same time practically nothing for maintenance.

NAVIGABILITY OF THE ST. LAWRENCE.

The extreme lowest water in the Ship Channel to Montreal, in 1905, was 27 feet 1-inch, which occurred during the week of the close of navigation. The lowest average for a month was 28 feet 1-inch also in November. As soon as the 30-foot channel is available, which is expected next autumn, there will be an additional depth of 4 feet.

That will be tidal navigation at least 12 hours out of the 24, up to Quebec and over the St. Augustin Bar. Cap à la Roche will require to be passed at high tide.

Although in dredging an extra foot is made, to allow for slight inequalities, the full draught cannot be carried on account of the 'dip' of vessels. This is greatest in ships built for speed, and increases with the speed, and inversely, to a great extent, with the

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body of water in the channel. The bow forces the water ahead, the propeller drives it aft, and the vessel settles down in the trough between the two waves.

Frequently ships have been seen, which left Montreal on a registered draught of 26 feet, drawing in Lake St. Peter, going at less than half speed, 28 feet. In many cases fresh water is taken aboard in large quantities, sometimes unknown to the officers and frequently without the knowledge of the pilot.

The depth of water in the channel at Sorel and Cap à la Roche is reported daily and the port authorities deduct a certain amount to allow for this extra submersion. As it has been known that the water varied from the day of the gauge reading, to the next, when the ship was in the channel, a deduction of 9 inches is made before reporting from the gauges. This occasionally allows the ships, in the low water season, at Montreal, only a draught for clearing of 25½ feet, which is not sufficient. The additional 4 feet expected next year will be greatly appreciated.

It is stated that the average load-line draught of 50 modern vessels is over 30 feet. 'Engineering' states that there are only two, or at most three ports in the world always accessible to them. Six of the most important ports in the world could be reached fairly constantly, while the docks at Havre, Hull, Cardiff, Avonmouth, Glasgow, Antwerp and Boston would only be temporarily accessible.

The same authority states that, though doubtful, Amsterdam might be reached, but Hamburg, Bremen, Dunkirk, or Rotterdam, never.

The situation of the St. Lawrence ports of Quebec and Montreal is therefore most hopeful.

Further improvements to give any reasonable depth by dredging are not only possible but may be obtained at much smaller cost than for many of the rival ports, and requiring a very slight cost for maintenance.

It is stated that the draught of 30 feet will, in all probability, be 'deemed mediocre at no distant date.'

On the other hand, considering the great necessary outlay for ports, it is possible that ship builders may take a lesson from the success of the Marine of the Great Lakes. There, the draught is limited to 20 feet or thereabouts, by canals and channels as well as ports, and yet nowhere in the world is freight carried more cheaply. It is to be hoped that at least some attention will be given to the possibility of further developments in tonnage, on the lines of the 12,000 ton freighters on the Great Lakes.

R.M.S. 'VICTORIAN.'

One of the most trying and difficult features that has ever arisen in connection with the construction and maintenance of the River St. Lawrence Ship Channel was the case of the *Victorian*.

Friday, September 1, was a bad day in the history of the St. Lawrence. The premier vessel of the route, the new turbiner *Victorian*, went ashore under bad conditions at Cap Charles. On the same day the large Leyland freighter *Virginian* grounded and filled at Crane Island, about 40 miles below Quebec.

Smoke from forest fires, accompanied by fog, makes the worst possible conditions on the St. Lawrence. These, fortunately, rarely come together.

When it was learned, therefore, that the largest steamship of the route had gone aground under these conditions, at nearly high tide and at one of the worst places between Montreal and Quebec, the most widespread regret was manifested.

The trouble was to float her, and the danger, that she would swing around and block the narrow channel and not only stop traffic for a considerable time but probably be a total loss.

By prompt and direct orders from the Honourable the Minister, the resources of the department were at once placed at the disposal of the *Victorian*, to obviate that danger.

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When it is known that with the ebb tide there is a current of over 5 miles per hour, the river bed rock, the channel only 300 feet wide and the ship 540 feet long, some of the dangers and difficulties will be realized. On the bank where the vessel was aground there was a depth, at low water, of 18 feet, and in the dredged cut 9 feet more. The tide gave an additional depth of 7 feet at springs and 4 feet at neaps.

That there was no serious delay to traffic, and that the vessel was successfully floated on September 12, and able to reach Quebec under her own steam, is a matter for some gratification.

The bad effect of this 'marine disaster' was greatly modified therefore by the success of the efforts to float her, by the assistance given by the Government, and by the fact that notwithstanding such a combination of bad conditions, the damage was so much less than could be hoped for.

By a unanimous resolution adopted by the Shipping Federation of Canada on September 18, the Federation expressed their thanks to the Government for the prompt action and valuable services rendered, in connection with the stranding of the R.M.S. *Victorian*, and in relieving a very critical situation in the navigation of the St. Lawrence.

A copy of this resolution in full, bearing the seal of the corporation, was forwarded to the Right Honourable Sir Wilfrid Laurier, Premier of the Dominion of Canada.

PROJECT OF 1899.

In 1899 the dredging plant was in a position to warrant the commencement of an extensive plan of operations, and the 30-foot channel was undertaken.

The low water of 1897, the lowest on record, except the short period of extraordinary low water of 1895, was adopted as the plane of river level at which the channel would be made 30 feet in depth.

It was also decided to make the channel as wide as could be dredged in one cut, viz., 450 feet.

The project of 1899 had for its object the dredging, in the shortest possible time of a ship channel between Montreal and Quebec for safe 30-foot navigation.

The minimum width for the tangents has been fixed at 450 feet, but the bends are widened out to from 500 to even 750 feet. The dredging is being done to give a clear depth of 30 feet at the E.L.W. of 1897.

The average navigable depth in this channel, as being dredged, during the season of 1905, was as follows: May, 35 feet 6 inches; June, 34 feet 4 inches; July, 33 feet 3 inches; August, 32 feet 8 inches; September, 31 feet 8 inches; October 32 feet 1 inch; November, 31 feet 9 inches.

The greatest depth from May to November was 37 feet 2 inches, and the least, at the end of November, 31 feet.

COST OF SHIP CHANNEL TO DATE.

TABLE showing the Total Cost of the Dredging and Plant, and the Quantities dredged up to June 30, 1905.

	Cost of Dredging.	Expenditure for plant, shops, surveys, &c.	Quantities dredged.
	\$ cts.	\$ cts.	Cubic yards.
<i>Montreal Harbour Commissioners— 1851 to 1888.</i>			
Dredging Montreal to Cap à la Roche to 27½ feet at ordinary low water, and from Cap à la Roche to Quebec to 27½ feet at half tide	3,402,494 35	534,809 65	19,865,693
<i>Department of Public Works.</i>			
Dredging consisting of widening and cleaning up of channel: deepening Cap à la Roche to Cap Charles to 27½ feet at ordinary low water, and dredging at Grondines, Lotbiniere and Ste. Croix—1889 to June 30, 1899. . .	829,583 08	486,971 79	3,558,733
Project of 1899—Dredging channel between Montreal and Quebec to 30 feet at lowest water of 1897; also, widening to a minimum width of 450 feet and straightening—			
Fiscal year 1899-1900.....	100,191 01	265,270 78	1,107,894
" 1900-1901	136,680 83	287,040 04	2,479,385
" 1901-1902	185,429 80	479,731 47	3,098,350
" 1902-1903	255,776 55	277,703 50	6,544,605
" 1903-1904	276,958 59	308,765 44	4,619,260
<i>Department of Marine and Fisheries.</i>			
Fiscal year 1904-1905.....	311,087 93	266,460 33	2,716,220
	5,498,202 14	2,906,753 00	43,990,140

DREDGES.

Laval (No. 1.)—Of the fleet of Ship Channel dredges, this is the oldest. The hull is of wood, constructed in Ottawa, in 1894. The buckets are made of cast steel for work in rock and other hard material.

The details of the operations of this dredge for the fiscal year were as follows :—

From the commencement of the fiscal year until October 19, 1904, the *Laval* worked at widening and deepening the channel between Becancour and Ile Bigot, in hard material consisting of clay, stones and hard-pan. The dredge was then taken up to work on the channel between Sorel and Ile de Grâce, in soft clay, until the end of the season, November 26.

On the opening of the season of 1905, this dredge was laid out on May 14 to widen and deepen the channel at Becancour Traverse, the material being clay and boulders, very hard and difficult to dredge, and requiring the constant services of a stone-lifter. She continued to work there until the end of the fiscal year.

In a total of 173 days during which this dredge was at work, her machinery was in actual operation 63 per cent of the full working time.

The total quantity dredged amounted to 215,925 cubic yards, at a cost of \$39,027.20, or 18⁰⁷/₁₀₀ cents per cubic yard.

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Laurier (No. 2.)—The hull of this dredge is also of wood, having been constructed at the Government Works at Sorel in 1897. Her buckets were formerly of large size, built up from cast steel bottoms, for working in soft material. As almost all the work in soft material was completed, the buckets were changed during the winter of 1903-04 and replaced by smaller and stronger buckets, having sufficient teeth for working in hard-pan, &c.

During the winter of 1904-05 this dredge was thoroughly overhauled and had the above water parts of the hull rebuilt. Additional quarters were also provided for the crew.

From July 1, 1904, this dredge worked at Port Francis on Force Shoal, widening and deepening, the material being very hard clay with embedded boulders. When this work was completed on July 18, the *Laurier* was taken to work on the channel between Becancour and Ile Bigot, where the material consisted of clay, sand, stones and hard-pan. On November 15, she was also taken up to work on the channel between Sorel and Ile de Grâce, where she continued until taken into winter quarters on November 25. Owing to extensive repairs to hull and machinery the dredge was only taken out on May 15, 1905, and placed to work at Pointe Citrouille, widening and deepening the channel to Champlain, where she continued till the end of the fiscal year, the material being clay and sand.

The number of days during which this dredge was in operation was 165, and the percentage of time at actual work, 52 per cent.

During the fiscal year she removed 149,750 cubic yards at a total cost of \$41,271.36, or 27⁵⁶/₁₀₀ cents per cubic yard.

Lady Aberdeen (No. 3.)—The hull of this dredge is of steel, the vessel complete having been constructed at the Sorel works in 1900. The buckets were originally designed for working in soft material, but were replaced by a complete new set of cast steel buckets especially designed for working in rock or other hard material.

At the commencement of the fiscal year this dredge was working at Port St. Francis, on Iron Shoal, where the material was very hard, consisting of sand, stones and hard-pan. She worked there until November 14, when she was taken up to work on the channel between Sorel and Ile de Grâce, and continued working there until the end of the season.

On the opening of the season of 1905 she was taken back to Port St. Francis on April 26 and laid out to work on Iron Shoal, where she had left last season, and worked there until its completion. The dredge was then taken down to Champlain and laid out to work on the curve, widening and deepening, and was still at work at the end of the fiscal year, the material being sand, clay and stones.

During the year this dredge was at work 181 days with the machinery in actual operation 64 per cent of the full working time.

The total number of cubic yards removed amounted to 295,400 at a cost of \$39,163, or 13²⁵/₁₀₀ cents per cubic yard.

Lady Minto (No. 4.)—Dredge 'No. 4' is of the same type and design as the *Lady Aberdeen*. In the winter of 1903-04, the buckets were changed from those adapted for soft material to a cast steel set for working in hard material.

During the whole of the season of 1904, including the five best months of this fiscal year, the dredge was absent from the Ship Channel, having been removed by the Public Works Department for work at Rivière Ouelle wharf and on the Rivière Saguenay.

The dredge unfortunately met with a serious accident, and when returned to Sorel was in very bad condition, the steel bucket frame having to be practically rebuilt.

The Public Works Department paid for the actual operations of the dredge when absent, but the cost of the extra heavy winter repairs was paid from the Ship Channel appropriation. As the dredge only worked on the Ship Channel for about two months,

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and then, in very hard material, the results in yards excavated were small and the extra cost, being divided over one-third of a season, was extraordinarily high.

In the 59 days of work the actual operations were carried on for 65 per cent of the full working time, and 56,200 cubic yards removed at a cost, including the complete winter and extra repairs, of \$25,409.05, or 45²¹/₁₀₀ cents per cubic yard.

Lafontaine (No. 5.)—This vessel is probably the best dredger of her type in the world. The hull is of wood, the work of the Sorel shipyard, completed in 1901. She was fitted out with large, but very strong, built up buckets for soft material, with which she worked during the first half of the fiscal year, but during the winter of 1904-05 these were replaced by a complete new set of cast steel buckets for working in rock and other hard material.

From the commencement of the fiscal year until August 2, the *Lafontaine* worked at the foot of Lake St. Peter, on Nicolet Traverse, in blue clay with some stones. She was then placed at Pointe Citrouille, widening and deepening the channel between Pointe Citrouille, and Champlain, in clay, sand and a few stones, and continued to work there until November 19, and from that date until November 26, when she went into winter quarters, she worked on the channel between Sorel and Ile de Grâce.

On April 25, 1905, this dredge was taken to work on Becancour Traverse where the material was exceedingly tough and difficult to dredge, consisting of hard-pan and embedded boulders. She continued working there until the end of the fiscal year.

The working time of the *Lafontaine* was 181 days, the dredge being in actual operation 61 per cent of the full working time.

The total number of cubic yards removed amounted to 574,000 at a total cost of \$44,237.71, or 77⁰/₁₀₀ cents per yard.

Baldwin (No. 6.)—This is the newest vessel of the elevator dredge fleet. The hull is of wood, constructed at the Sorel ship yard in 1902.

During the winter of 1903-04, the buckets were rebuilt and straightened, and during the winter of 1904-05 sufficient teeth were added to the buckets for working in hard-pan, &c.

At the commencement of the fiscal year, this dredge was working at Becancour in very hard material consisting of hard-pan and embedded boulders. She worked there until August 8, when she was taken up to the foot of Lake St. Peter, on Nicolet Traverse, and laid out to dredge a short piece of hard work that had been left by dredge *Lafontaine*. After completing this work on August 25, she was taken down to Champlain where she remained until November 14, and was then brought up to work on the channel between Sorel and Ile de Grâce, until taken into winter quarters on November 25, 1904.

In 1905, after leaving winter quarters on May 6, the *Baldwin* was laid out to work at Champlain where she had left off last season and continued there until the end of the fiscal year.

The number of days during which this dredge was in operation was 172, and the percentage of time at actual work, 67 per cent.

The total number of cubic yards removed amounted to 301,820 at a cost of \$42,677.59, or 14¹⁴/₁₀₀ cents per yard.

J. Israël Tarte (No. 7.)—The hydraulic dredge *J. Israël Tarte* began work only on September 25, on account of having four new marine boilers put in, and also the extensive alterations made throughout the dredge, as well as in the machinery and discharge connections. She thus lost the three best months of the dredging season.

The dredge was placed to work at the head of Lake St. Peter on Ile aux Raisins Traverse, widening and deepening, the material being sand, clay and hard-pan. She finished there on November 24, and went into winter quarters.

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At the commencement of the season of 1905, the dredge was placed to work at the foot of Lake St. Peter, at No. 3 curve, on May 18, and continued to work there until the end of the fiscal year, the material being blue clay.

In the 92 days, the dredge was in actual operation 67 per cent of the full working time. The total number of cubic yards removed amounted to 1,123,125 at a cost of \$79,302.02, or an average of $7\frac{6}{100}$ cents per cubic yard.

GENERAL NOTES.

The Ship Channel plant consists of 7 large dredges, 12 tugs, 2 stone-lifters, 4 coal barges and a large number of scows of various dimensions.

During the winter months the whole of this plant is thoroughly overhauled and repairs and renewals made where required, so as to be ready for commencing operations on the opening of navigation.

The dredges are operated 132 hours per week, or steadily from midnight on Sunday until noon on Saturday. Stops are only made for repairs, for shifting from one place to another, bad weather or to give room for passing vessels. Coal is supplied by barges without stopping the work.

The constant steady work in exceedingly hard material, at a depth of from 32 to 42 feet, is very hard on machinery. Only the very best designed and well constructed plant can stand it. Traffic must not be interrupted and the work must always be carried on in the more or less swift current.

The material is increasing in hardness from year to year, as the work nears Quebec. All the soft material, except the remainder of the work in Lake St. Peter, is now completed. A dredge that can remove 6,000 yards per day in soft material, without trouble, is more fatigued by dredging 1,000 yards of hard-pan in which boulders are imbedded.

The work of 1905 has been harder than during any of the previous seasons. The dredges, when taken into winter quarters late in November, showed broken teeth and twisted buckets and general signs of the exceedingly hard work to which they were subjected.

The dredging plant is owned and operated directly by the government.

The first dredges were designed and the machinery built in Scotland, the home of elevator dredges.

Since 1872, all of the plant has been designed and constructed in Canada, and many improvements in dredge machinery have been made by the skilled engineers who have from time to time been connected with this work.

The best and most efficient plant is an absolute necessity.

All the superintendence and management devolves on the officers of the department.

The construction and repairs and the management of the Sorel works are in charge of Mr. G. J. Desbarats, C.E., Director of the Ship Yard at Sorel.

The design of the improvements, the engineering branch, as well as the superintendence of the operations are directly under the Superintending Engineer.

The work of the very efficient staff and the details of the placing of the dredges are conducted by Mr. V. W. Forneret, C.E., in a very able manner.

About 400 men are employed in connection with the dredging operations. Those men, all sailors, were born and brought up at Sorel or at some of the parishes bordering on the River St. Lawrence. Most of them have been trained to the service from boyhood. The senior captain of the fleet makes the statement that he has never earned a cent in any other service. A great deal of the success of the operations is due to this good training. The work requires extraordinary care and great patience, the machinery being forced to the utmost and passing vessels requiring to be constantly watched for.

A captain and an engineer are in general charge respectively of the vessel and machinery. The remainder of the crew is divided into 2 watches, and works in shifts of 6 hours. At noon on Saturday the work stops.

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Only two holidays, Dominion Day and Labour Day, are given throughout the season. The boarding of the men is done by contract with the captain of the vessel, at so much per man.

In making up the cost of the work of dredging everything is included, except interest on the capital expenditure and depreciation. The principal items of cost are wages, fuel, board, stores and repairs, as well as general expenses and superintendence. The item of repairs includes keeping the plan in constant good order, but not new improved machinery. The cost of operating an elevator dredge with its attendant plant amounts to between \$30,000 and \$40,000 per annum. The cost of operating the hydraulic dredge amounts to about double that sum.

The Total cost of the dredging operations on the Ship Channel for the fiscal year ended June 30, 1905, was \$311,087.93 and the total number of cubic yards dredged 2,716,220, making the cost per yard $11\frac{45}{100}$ cents.

The heavy cost, this year, and the reduced quantities excavated, require some explanation.

The dredge *Lady Minto* was absent for 5 months and her extra repairs, added to the ordinary winter repairs, being divided over 2 months of ship channel work made an abnormal cost, both for that particular dredge and for the complete returns of the fleet.

The hydraulic dredge *J. Israël Tarte* was also at the ship yard, putting in new boilers at a heavy cost, with the loss of July, August and September, the three best months of the season. This also not only greatly effected the returns for that dredge but the general results.

The wages have also been somewhat raised, but as will be seen from the table of classification of cost, the great increase is in the cost of supplies and repairs.

The operations, as well as the organization and plant, are attracting widespread interest. Many inquiries for information are received, and during the past season the channel was inspected by several representative officials and noted engineers from foreign countries.

Mr. Quellenec, so well known as Chief Engineer of the Suez Canal, and at present a member of the International Board of Consulting Engineers for the Panama Canal, after a careful inspection, expressed in a letter to the minister that he knew personally every great artificial waterway in the world and that, in his opinion, both the St. Lawrence Ship Channel and the plant were unique, as to the magnificence of the channel and the success of the operations.

It takes ten years to give an increase of depth of three feet. In much less than that time the maximum size of the ships using the channel has increased from 6,000 to 12,000 tons. Now 15,000 ton vessels are proposed.

That the channel of to-day will accommodate the commerce of ten years hence is not to be expected by even the most unimaginative, and it is recognized that we must build for the future. The capacity of the River St. Lawrence for navigation should grow with the country, as even now, to a large extent, the size of the vessel decides the economy of transportation.

The following tables show in a concise form the progress to date, the details of the operations of the different dredges, the classification of the expenditure, the cost per yard in each locality and the expenditure at Sorel in connection with new plant and the ship yard generally :—

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PROGRESS of the Dredging Operations at the date of writing, the close of the season of 1905.

Locality.	Distance English Miles.	Total Length Requiring Dredging.	Length Dredged in in 1905.	Total Length of 30 Feet Channel. Dredged.	Length yet to be Dredged.
		Miles.	Miles.	Miles.	Miles.
Division 1:— Montreal to Sorel.	45	22.30	0.40	22.20	0.70
Division 2:— Sorel to Batiscan.	36	12.45	2.90	10.90	1.55
Division 3:— Lake St. Peter.	20..	18.00	2.10	*7.70 "5.70	4.60
Division 4:— Batiscan to Quebec.	59	10.00	.....	0.90	9.10
Division 5:— Quebec to The Traverse... .	60	6.65	6.65
	220	70.00	5.40	47.40	22.60

* Not widened. " Widened.

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PROGRESS of the Dredging Operations at the date of writing, the close of the season of 1905.

Locality.	LENGTH OF DREDGING.		Cubic yards yet required to be done.
	Required.	Done.	
	Miles.	Miles.	
Division 1:—			
Longueuil Shoal.	0.70	0.40	100,000
Longue Pte. to Pte. aux Trembles (en haut).		5.05	
Ile Ste. Therese		0.40	
Varennes to Cap St. Michel.		3.00	
Cap St. Michel to Vercheres.		4.50	
Vercheres Traverse		1.10	
Vercheres to Contrecoeur		1.70	
Contrecoeur Channel		6.05	
Total	0.70	22.20	100,000
Division 2:—			
Sorel to Ile de Grace.	0.50	3.90	150,000
Stone Island		1.10	
Ile aux Raisins.	0.25		40,000
Lake St. Peter (see Div. 3)			
Port St. Francis.		0.50	
Three Rivers.		0.50	
Cap Madeleine de Bécancour.		1.55	
Bécancour to Champlain		2.25	
Champlain to Pte. Citrouille	0.20	1.10	150,000
Batture Perron.	0.60		450,000
Total	1.55	10.90	790,000
Division 3:—			
Lake St. Peter	4.60	*7.70 †5.70	11,200,000
Total	4.60	13.40	11,200 000
Division 4:—			
Batiscan to Cap Levrard	3.00		1,300,000
Cap à la Roche Channel	2.00		1,200,000
Pouillier Royer.	1.20		500,000
Cap Charles.	0.90		500,000
Grondines	0.80		200,000
Lotbiniere		0.40	
Cap Santé.		0.20	
Ste. Croix.	0.60	0.30	150,000
St. Augustin	0.60		150,000
Total	9.10	0.90	4,000,000
Division 5:—			
Quebec to The Traverse	6.65		5,000,000
Total	6.65		5,000,000
Totals.	22.60	47.40	21,090,000
Cubic yards done.			43,990,140
Total.			65,080,140

* Not widened. † Widened.

RIVER ST. LAWRENCE SHIP CHANNEL.
ABSTRACT of work of Dredging Fleet during the fiscal year ended June 30, 1905.

Dredge.	Locality of Dredging.	Time of Service.		Nominal working time, 24 hours per day.	Hours Actual Dredging.	Number of Scows filled.	Number of Cubic Yards dredged (scow measurement).	Depth of Dredging at Low Water, 97.	Width.	Character of Soil.	Remarks.
		Days.	Hours.					Ft. In.	Feet.		
<i>Laval</i> (No. 1).	Becancour.	143	2,872		1,776½	883	134,725	30 0	450	Clay, stones and hardpan	C pt. R. Matte.
	Sorel to Ile de Grace.	30	575		388	534	81,200	30 0	450	Clay	
		173	3,447		2,164½	1,417	215,925				
<i>Laurier</i> (No. 2).	Port St. Francis	13	245		146½	56	11,200	30 0	500	Clay, sand and stones.	Capt. C. Gendron.
	Becancour	101	1,935		944½	328	65,600	30 0	450	Clay, stones, and hardpan	
	Sorel to Ile de Grace.	10	195		105	84	16,800	30 0	450	Clay	
	Champlain.	41	900		496	280½	56,150	30 0	450	Clay and sand.	
		165	3,275		1,692¼	748¾	149,750				
<i>Lady Aberdeen</i> (No. 3)	Port St. Francis	149	2,956		1,902¾	1,234	246,800	30 0	550	Sand, stones and hardpan	Capt. N. Dauphinais.
	Sorel to Ile de Grace.	12	230		140	125	25,000	30 0	450	Clay and sand.	
	Champlain.	20	444		282	118	23,600	30 0	450 to 750	Clay, sand and stones.	
		181	3,630		2,324¾	1,477	295,400				
<i>Lady Minto</i> (No. 4).	Becancour	59	1,296		846¾	281	56,200	30 0	450 to 750	Clay, stones and hardpan	Capt. B. Ladebauche (5 months absent at River Saguenay).
<i>Lafontaine</i> (No. 5).	Lake St. Peter, Nicolet	27	515		245½	418	125,400	30 0	350	Blue clay and stones	Capt. A. Marcotte.
	Traverse.	91	1,745		1,041	1,258	377,400	30 0	450	Clay sand and stones.	
	Champlain.	6	115		74½	55	16,500	30 0	450	Clay	
	Sorel to Ile de Grace.	57	1,248		852	182	54,700	30 0	450	Clay, stones and hardpan	
	Becancour.	181	3,623		2,213	1,913	574,000				

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<i>Baldwin</i> (No. 6)....	Becancour.....	32	610	421 ³ / ₄	100	30,000	30	0	450 to 750	Clay, stones and hardpan	Capt. L. Dauphinais.
	Lake St. Peter, Nicolet										
	Traverse.. . . .	15	290	168 ¹ / ₂	83	23,700	30	0	350	Clay, sand and stones....	
	Champlain.	114	2,316	1,569 ¹ / ₂	718	215,120	30	0	450 to 750	" " . . .	
	Sorel to Ile de Grace....	11	210	139	110	33,000	30	0	450	Clay	
<i>J. Israel Tartc</i> (No. 7)		172	3,426	2,298 ¹ / ₂	1,011	301,820					Capt. J. L. Michaud (best 3 months of season lost putting in new boilers).
	Lake St. Peter.....	92	2,090	1,391	.....	1,123,125	30	0	450 to 650	Soft blue clay
						2,716,220					

RIVER ST. LAWRENCE SHIP CHANNEL BETWEEN MONTREAL AND QUEBEC.

CLASSIFICATION of Disbursements for Fiscal Year ended June 30, 1905.

Vessels.	Fuel.		Wages.		Board.		Stores and Materials.		Repairs.—Labour.		Expenditure New Plant, Rebuilding, Shipyard, &c.		Proportion of General and Office Expenses, &c.		Expenditure for each Vessel.		Stone-lifter Service Elevator Dredges.		Tug Service.		Inspection, Towing, Sweeping, &c.		Total Cost of Operations of each Dredge and Plant during Fiscal Year.		Total Expenditure on different Appropriations.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Dredge Laval (No. 1)	6,826	68	6,619	60	2,576	34	1,198	77	4,752	56			1,927	00	23,900	95	805	08	8,987	12	5,334	05	39,027	20		
Tug Montcalm	278	87	904	77	444	89	84	83	242	68			335	00	2,291	04										
" Emilia	1,210	25	2,692	32	1,069	69	527	51	620	31			576	00	6,696	08										
Dredge Laurier (No. 2)	4,818	69	6,599	30	2,349	22	1,211	93	7,330	01			2,300	00	24,609	15	805	09	10,523	07	5,334	05	41,271	36		
Tug St. Jean Iberville	1,936	40	3,795	04	1,548	78	475	62	1,709	23			1,058	00	10,523	07										
Dredge Lady Aberdeen (No. 3).	6,023	88	6,928	41	2,612	74	1,408	22	4,204	59			2,018	00	23,195	84	805	08	9,828	03	5,334	05	39,163	00		
Tug Cartier	1,527	50	3,766	87	1,555	70	375	29	1,666	67			936	00	9,828	03										
Dredge Lady Minto (No. 4)	2,268	14	2,527	87	802	15	1,273	72	6,055	62			1,932	00	14,859	50	805	08	4,410	43	5,334	04	25,409	05		
Tug Champlain	408	90	1,414	22	504	18	427	10	935	03			685	00	4,410	43										
Dredge Lafontaine (No. 5)	6,826	70	6,883	49	2,671	07	1,502	04	6,303	15			2,294	00	26,480	45	805	09	11,618	12	5,334	05	44,237	71		
Tug Lac St. Pierre	3,167	80	3,742	21	1,504	14	904	57	1,187	40			1,112	00	11,618	12										
Dredge Baldwin (No. 6).	6,691	94	6,703	95	2,608	77	757	49	9,956	00			2,189	00	28,907	15	805	09	7,631	30	5,334	05	42,677	59		
Tug Jesse Hume	1,438	20	2,945	77	1,187	46	318	22	1,038	65			703	00	7,631	30										
Dredge J. Israel Tarte (No. 7).	18,026	59	19,799	14	3,337	80	2,207	02	4,437	23			3,808	00	51,615	78			17,018	16	10,668	08	79,302	02	311,087	93
Tug Montcalm	1,934	83	2,794	44	1,079	86	693	07	2,131	34			1,302	00	9,935	54										
" St. Francis	932	16	1,379	97	615	67	272	45	735	25			548	00	4,483	50										
" Carmelia	112	80	567	28	133	16	286	05	1,095	83			404	00	2,599	12										
Tug Emilia	152	75	832	00	646	80	110	30	119	46			115	00	1,976	31										
" St. Francis.	186	44	473	00	184	20	71	84	70	24			149	00	1,134	72										
Str. Eureka	606	30	1,916	72	354	94	805	99	3,189	53			1,265	00	8,138	48										
" Frontenac	4,225	30	5,121	03	2,967	73	1,942	80	1,874	79			1,818	00	17,949	65										
" Jas. Howden	3,346	40	4,004	99	1,824	14	1,818	92	1,368	76			1,110	00	13,473	21										
Stone-lifter No. 2	4	70	652	11	214	12	171	03	579	87			298	00	1,919	83										
" " No. 3	23	50	822	53	237	38	583	51	791	76			452	00	2,910	68										
Construction for dredging fleet—																										
Hopper scow No. 14											5,775	74														
" " No. 15											5,499	48														
Tug (Portneuf) No. 10.											14,834	66														
Floating machine shop.											7,211	73														
Dredges, new buckets											71,826	12														

RIVER ST. LAWRENCE SHIP CHANNEL BETWEEN MONTREAL AND QUEBEC.

Details of Dredging, Locality and Cost per Cubic Yard for Fiscal Year ended June 30, 1905.

Dredges.	Total Cost of Operations of each Dredge and Plant during Fiscal Year.	Number of Days in Operation, each Dredge.	Cost per Day, Operations of Dredge and Plant.	Days working each Locality.	Cost of Work, each Locality.	Total Cost of Operations of each Dredge.	Number of Cubic Yards dredged, each Locality.	Total Cubic Yards for each Dredge.	Cost per Cubic Yard, each Locality.	Average Cost per Cubic Yard for each Dredge.	Kind of Material Dredged.	Locality of Dredging.
	% cts.		% cts.		% cts.	% cts.			Cts.	Cts.		
Laval (No. 1).....	39,027 20	173	225 59	143	32,259 43	.....	134,725	.....	23 ⁹⁴ ₁₀₆	.....	Clay, stones and hardpan	Bécancour.
			225 59	30	6,767 77	39,027 20	81,200	215,925	8 ³³ ₁₀₆	18 ⁷⁶ ₁₀₆	Clay	Sorel to Ile de Grace.
Laurier (No. 2)	41,271 36	165	250 13	13	3,251 68	.....	11,200	.....	29 ³⁶ ₁₀₆	.....	Clay, sand and stones....	Port St. Francis.
			250 13	101	25,263 10	.....	65,600	.....	38 ⁵¹ ₁₀₆	.....	Clay, stones and hardpan	Bécancour.
			250 13	10	2,501 28	.....	16,800	.....	14 ⁸⁸ ₁₀₆	.....	Clay	Sorel to Ile de Grace.
			250 13	41	10,255 30	41,271 36	56,150	.....	18 ²⁶ ₁₀₆	27 ⁵⁶ ₁₀₆	Clay and sand	Champlain.
Lady Aberdeen (No. 3)	39,163 00	181	216 37	149	32,239 15	.....	246,800	149,750	13 ⁶⁶ ₁₀₆	27 ⁵⁶ ₁₀₆	Sand, stones and hardpan	Port St. Francis.
			216 37	12	2,596 44	.....	25,000	.....	10 ³⁵ ₁₀₆	.....	Clay and sand	Sorel to Ile de Grace.
			216 37	20	4,327 41	39,163 00	23,600	295,400	18 ³² ₁₀₆	13 ²⁵ ₁₀₆	Clay, sand and stones....	Champlain.
Lady Minto (No. 4)....	25,409 05	59	430 66	59	25,409 05	.....	56,200	56,200	45 ²¹ ₁₀₆	45 ²¹ ₁₀₆	Clay, stones and hardpan	Bécancour.
Lafontaine (No. 5)	44,237 71	181	244 41	27	6,598 97	.....	125,400	.....	5 ²⁶ ₁₀₆	.....	Blue clay and stones ...	Lake St. Peter, Nicolet Trav.
			244 41	91	22,241 11	.....	377,400	.....	5 ⁸⁸ ₁₀₆	.....	Clay, sand and stones....	Champlain.
			244 41	6	1,466 41	.....	16,500	.....	8 ⁵⁸ ₁₀₆	.....	Clay	Sorel to Ile de Grace.
			244 41	57	13,931 22	44,237 71	54,700	574,000	25 ⁴⁶ ₁₀₆	7 ⁷⁶ ₁₀₆	Clay, stones and hardpan	Bécancour.
Baldwin (No. 6)	42,677 59	172	248 13	32	7,939 96	.....	30,000	.....	26 ¹⁶ ₁₀₆	.....	Clay, stones and hardpan	"
			248 13	15	3,721 81	.....	23,700	.....	15 ⁷⁰ ₁₀₆	.....	Clay, sand and stones....	Lake St. Peter, Nicolet Trav.
			248 13	114	28,286 52	.....	215,120	.....	13 ¹⁴ ₁₀₆	.....	"	Champlain.
			248 13	11	2,729 30	42,677 59	33,000	.....	8 ²⁷ ₁₀₆	14 ¹⁴ ₁₀₆	Clay	Sorel to Ile de Grace.
J. Israel Tarte (No. 7)	79,302 02	92	861 98	92	79,302 02	79,302 02	1,123,125	301,820	7 ¹⁶ ₁₀₆	7 ¹⁶ ₁₀₆	Soft blue clay	Lake St. Peter.
	311,087 93	1,023	1,023	311,087 93	311,087 93	2,716,220	2,716,220	7 ¹⁶ ₁₀₆		

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DREDGING PLANT.

The following is a description of the dredging plant owned and operated by the Department of Marine and Fisheries in connection with the River St. Lawrence Ship Channel:—

DREDGES.

The Elevator Dredge 'Laval' (No. 1) wooden hull.

Length over all, 150 feet.
Breadth of beam, 30 feet.
Depth of hold, 14 feet.
Average draught, 11 feet.
Greatest working depth, 43·5 feet.
Hull built in Ottawa in 1894.
Steel buckets.
Working capacity per day in hard material, 1,000 to 2,000 cubic yards.

The Elevator Dredge 'Laurier' (No. 2), wooden hull.

Length over all, 168 feet.
Breadth of beam, 32 feet.
Depth of hold, 14 feet.
Average draught, 10 feet.
Greatest working depth, 42·5 feet.
Built at Sorel shipyard in 1897.
 $\frac{3}{4}$ cubic yard buckets for hard-pan.
Working capacity per day in fairly stiff clay, 2,000 to 3,000 cubic yards.

The Elevator Dredge 'Lady Aberdeen' (No. 3), steel hull.

Length over all, 148 feet.
Breadth of beam, 32 feet.
Depth of hold, 13 feet.
Average draught 8·5 feet.
Greatest working depth, 42·5 feet.
Built at Sorel shipyard in 1900.
Steel buckets.
Working capacity per day in hard material, 1,000 to 2,000 cubic yards.

The Elevator Dredge 'Lady Minto' (No. 4), steel hull.

Length over all, 148 feet.
Breadth of beam, 32 feet.
Depth of hold, 13 feet.
Average draught, 8·5 feet.
Greatest working depth, 42·5 feet.
Built at Sorel shipyard in 1900.
Steel buckets.
Working capacity per day in stiff clay and stones, 1,000 to 2,000 cubic yards.

The Elevator Dredge 'Lafontaine' (No. 5), wooden hull.

Length over all, 168 feet.
Breadth of beam, 32 feet.

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Depth of hold, 14 feet.
 Average draught, 9 feet.
 Greatest working depth, 45 feet.
 Built at Sorel shipyard in 1901.
 Steel buckets.
 Working capacity per day in hard material, 1,000 to 2,000 cubic yards.

The Elevator Dredge 'Lafontaine' (No. 5), wooden hull.

Length over all, 165 feet.
 Breadth of beam, 34 feet.
 Depth of hold, 14 feet.
 Average draught, 8 feet.
 Greatest working depth, 45 feet.
 Built at Sorel shipyard in 1902.
 1 cubic yard buckets strengthened for fairly hard material.
 Working capacity per day in medium material, 2,500 to 3,500 cubic yards.

The Hydraulic Dredge 'J. Israel Tarte' (No. 7), steel hull.

Length over all, 160 feet.
 Breadth of beam, 42 feet.
 Depth of hold, 12:5 feet.
 Average draught, 6 feet.
 Length of suction frame, 80 feet.
 Greatest working depth, 50 feet.
 Built at the Polson Iron Works, Toronto, in 1902.
 Working capacity per day in soft material, 12,000 to 20,000 cubic yards.

Discharge Pipe and pontoons of Dredge 'J. Israel Tarte' (No. 7).

23 lengths of pipe, 36 ins. diameter by 100 feet long.
 1 length of pipe, 36 ins. diameter by 35 feet long.
 23 pairs of pontoons for floating pipes, 42 ins. diameter by 90 feet long.

Winch Scow 'No. 3' for Dredge 'J. I. Tarte' (wooden hull).

Length over all, 60 feet.
 Breadth of beam, 18 feet.
 Depth of hold, 6 feet.
 Built at Sorel shipyard in 1902.

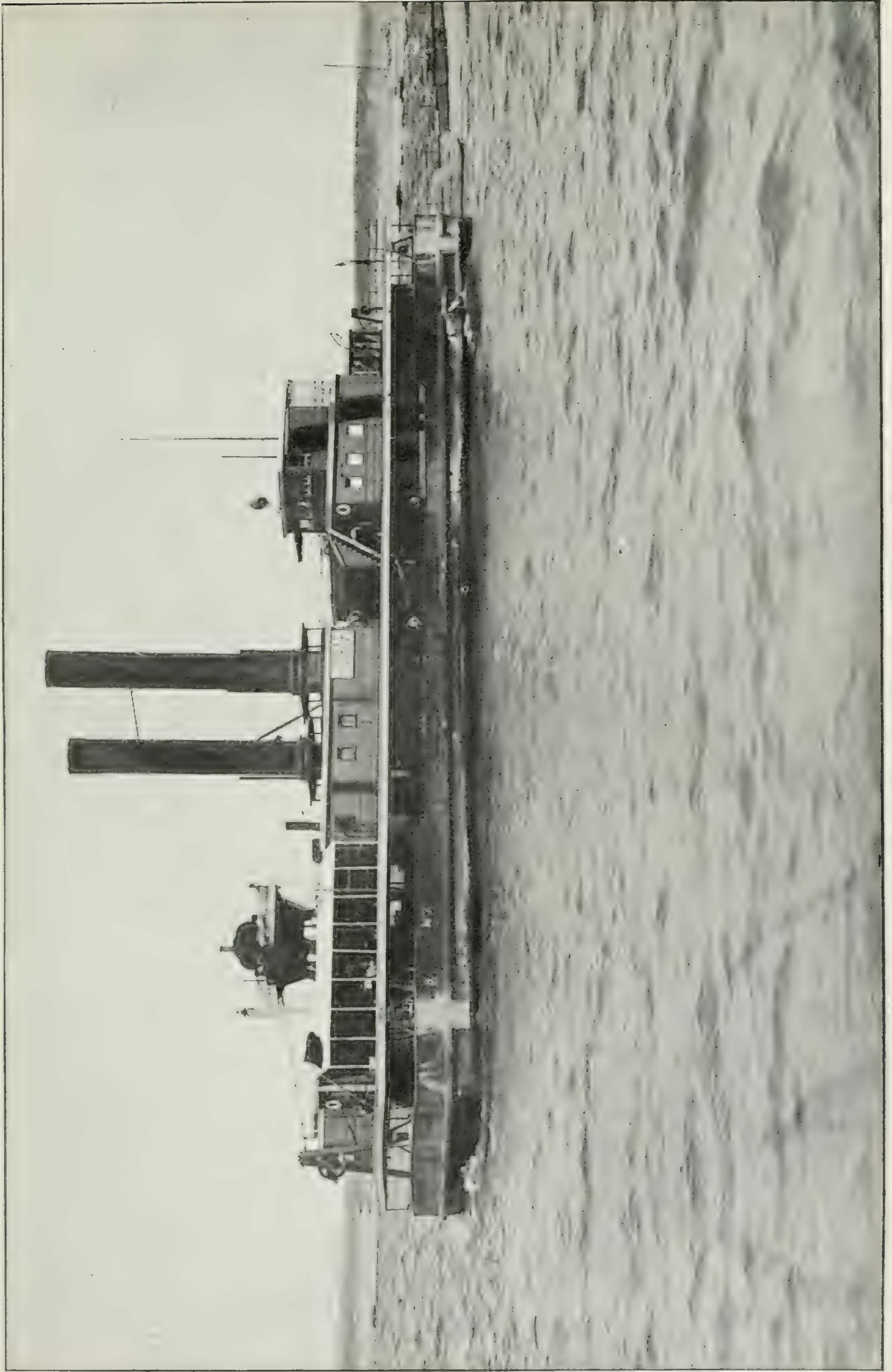
Winch Scow (wooden hull) for Dredge 'J. I. Tarte' (with steam boiler and steam winch).

Length over all, 75 feet.
 Breadth of beam, 25 feet.
 Depth of beam 5:5 feet.
 Built at Sorel shipyard in 1902.

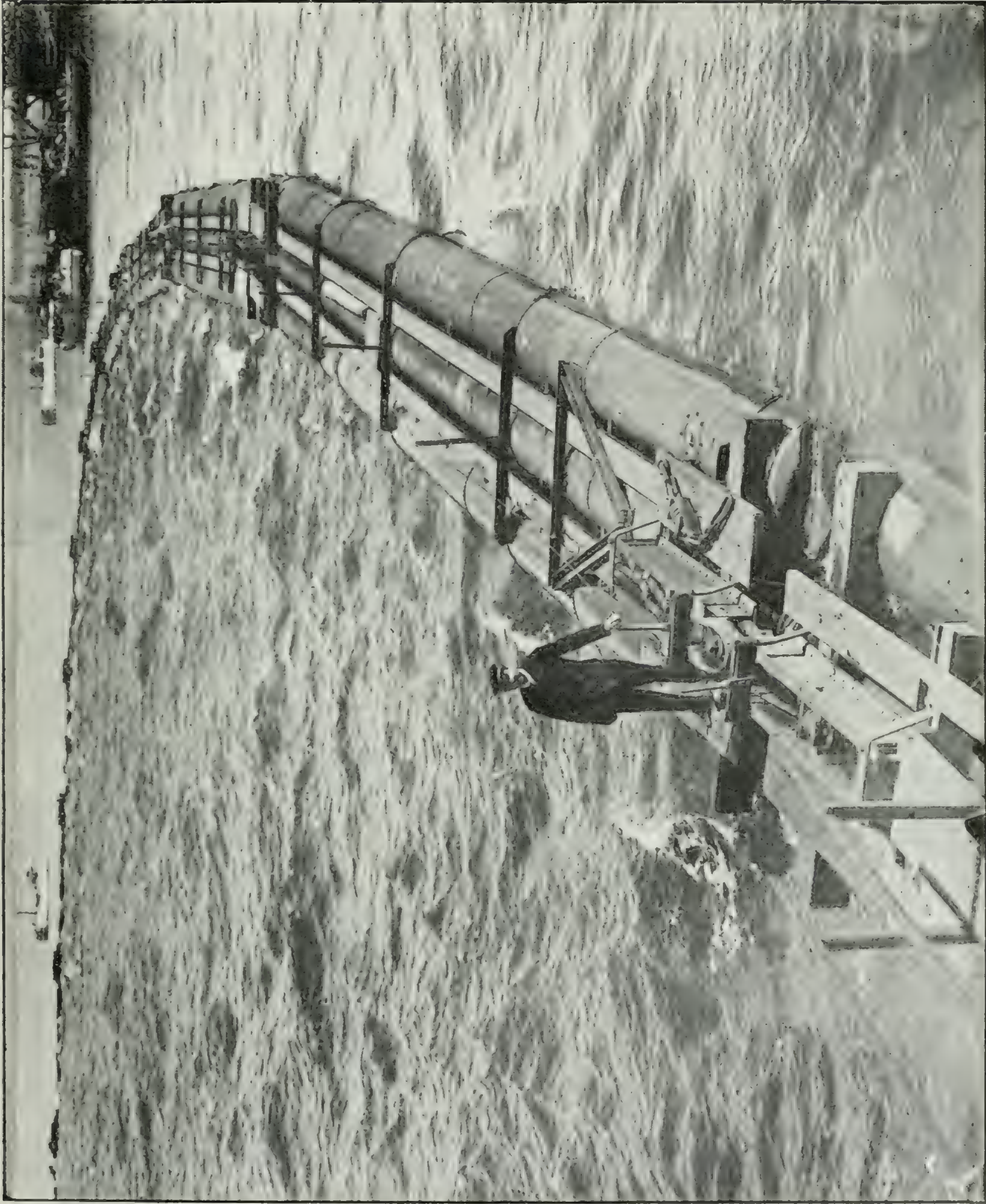
TUGS.

The Tug 'Frontenac' (composite hull).

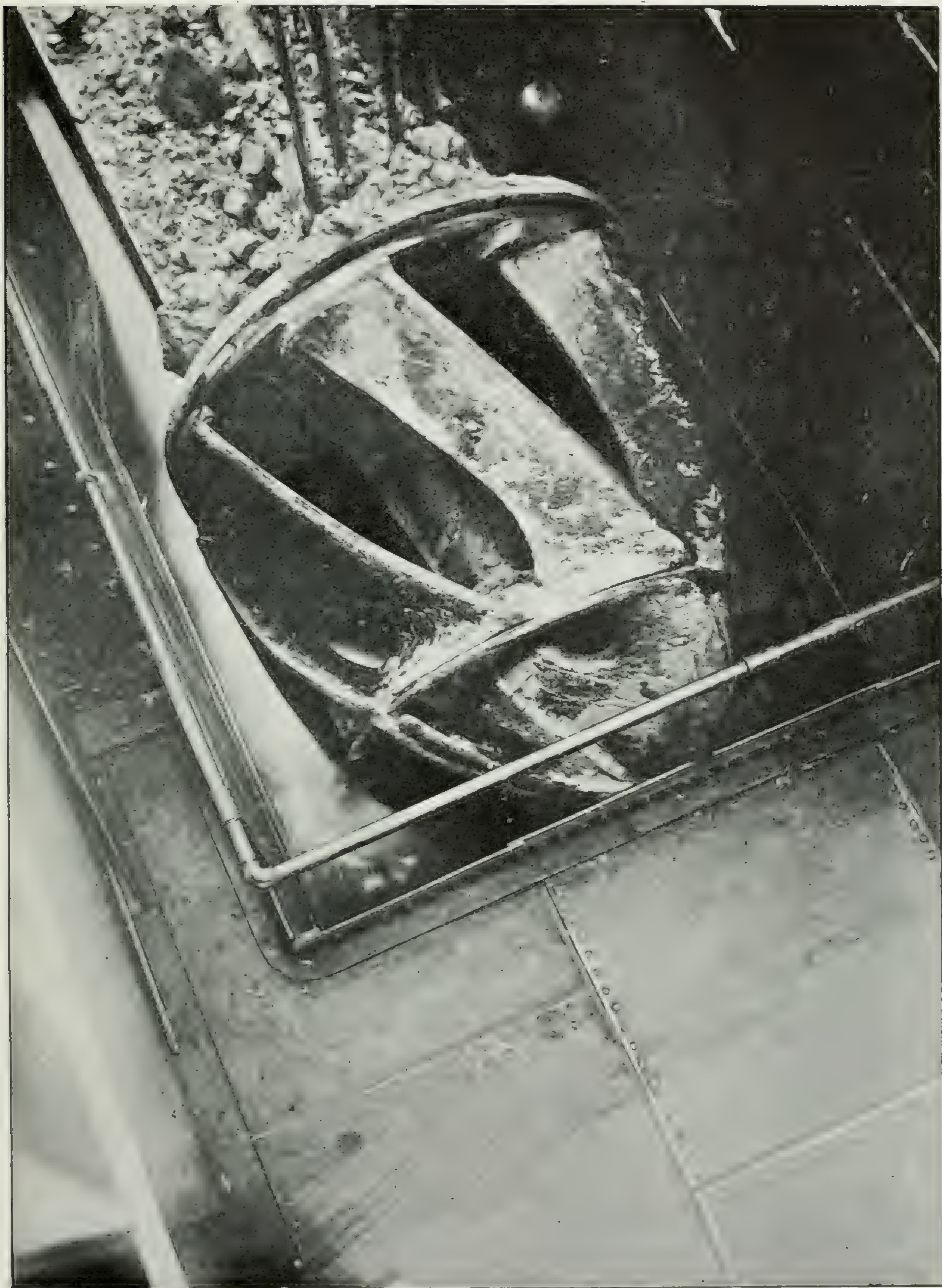
Length over all, 113 feet.
 Breadth of beam, 23 feet.
 Depth of hold, 10 feet.



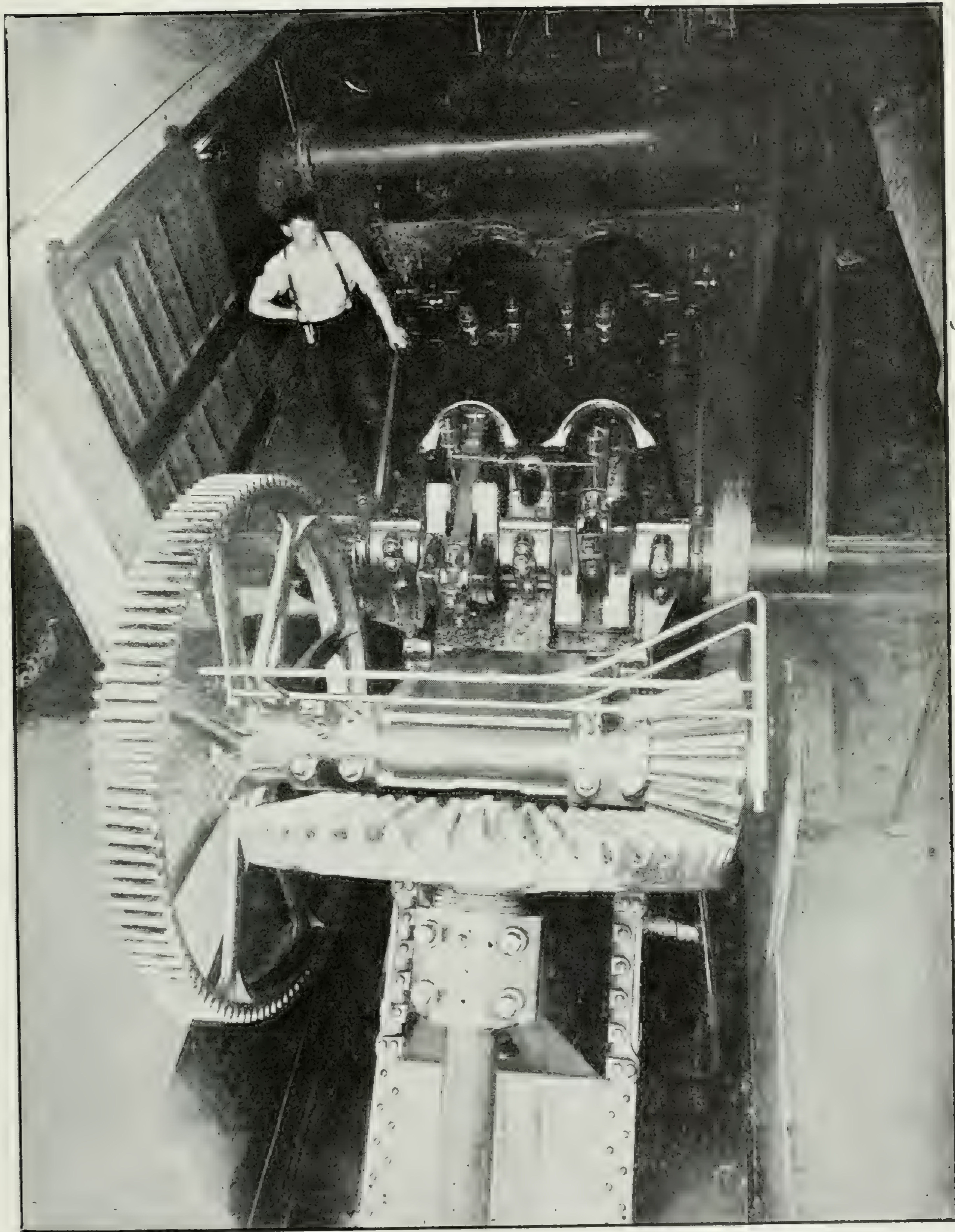
HYDRAULIC DREDGE "J. ISRAEL TARTÉ," No. 7, WORKING IN LAKE ST. PETER.



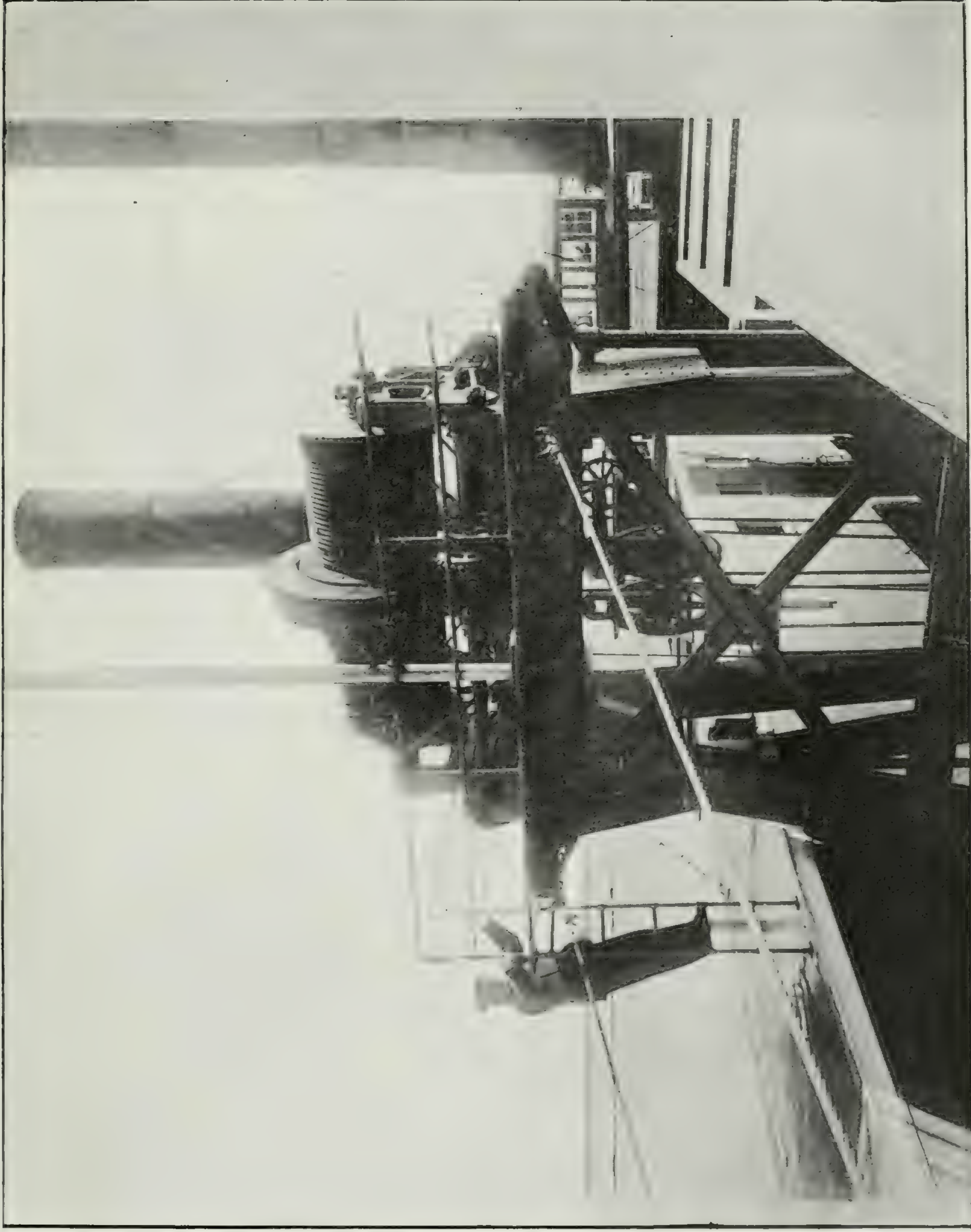
PART OF DISCHARGE PIPE, HYDRAULIC DREDGE NO. 7, SHOWING BALL-AND-SOCKET SPRING JOINT BETWEEN
EACH LENGTH OF 100 FEET.



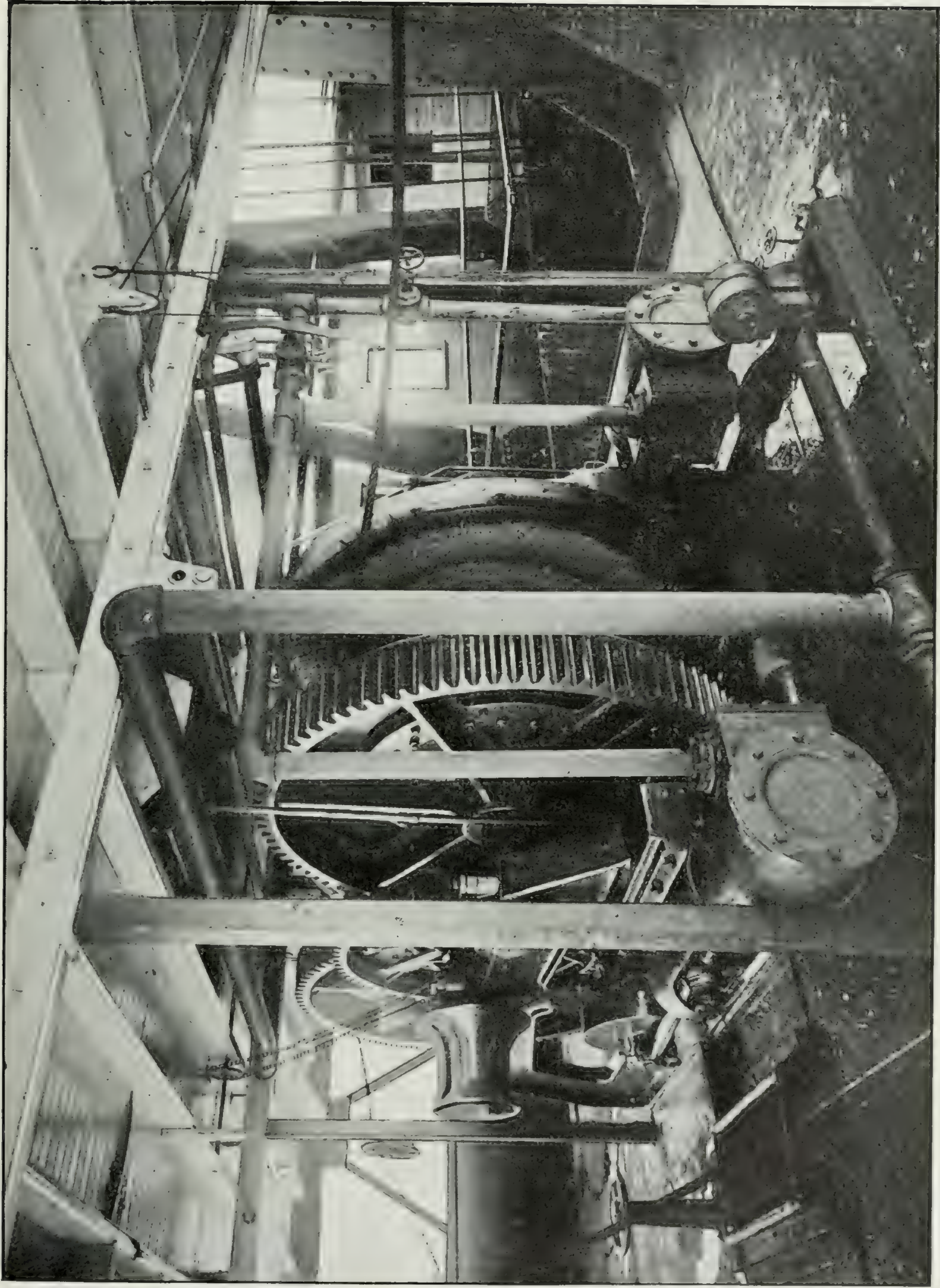
CUTTER-HEAD OF HYDRAULIC DREDGE NO. 7, SHOWING 4 KNIVES AT APEX AND 8 AT THROAT.



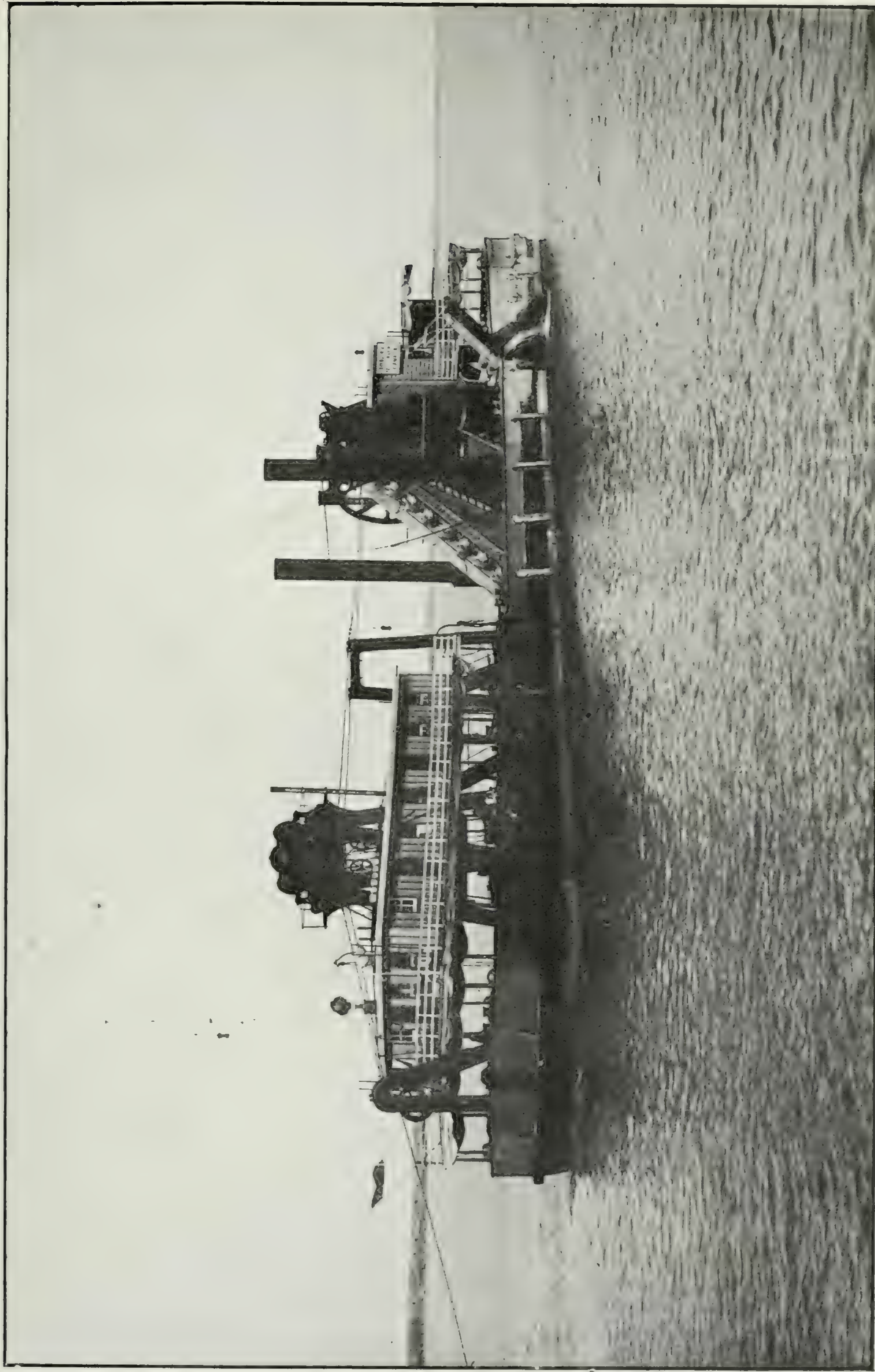
CUTTER-HEAD ENGINE, HYDRAULIC DREDGE, NO. 7.



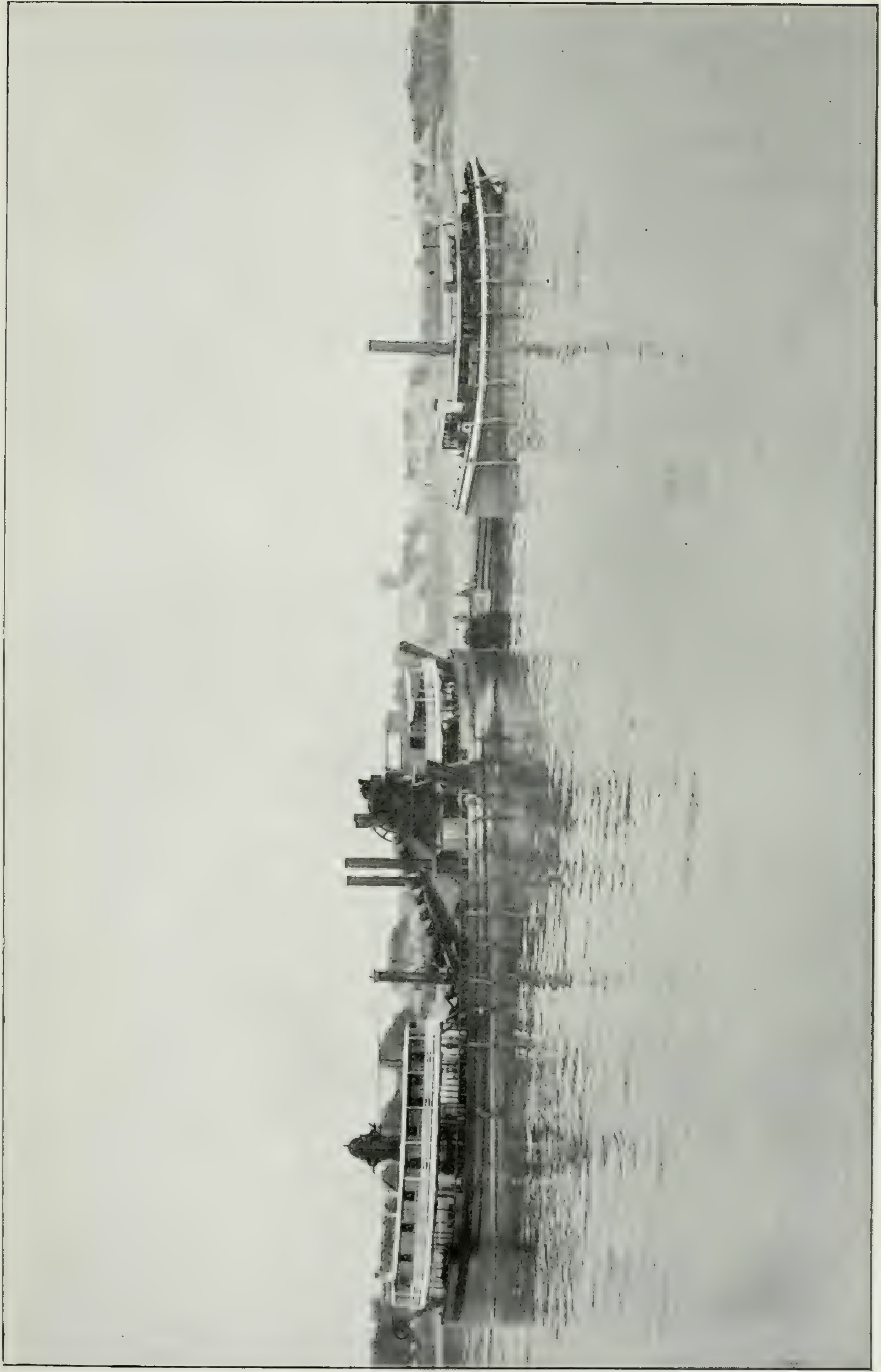
HOISTING WINCH, HYDRAULIC DREDGE NO. 7.



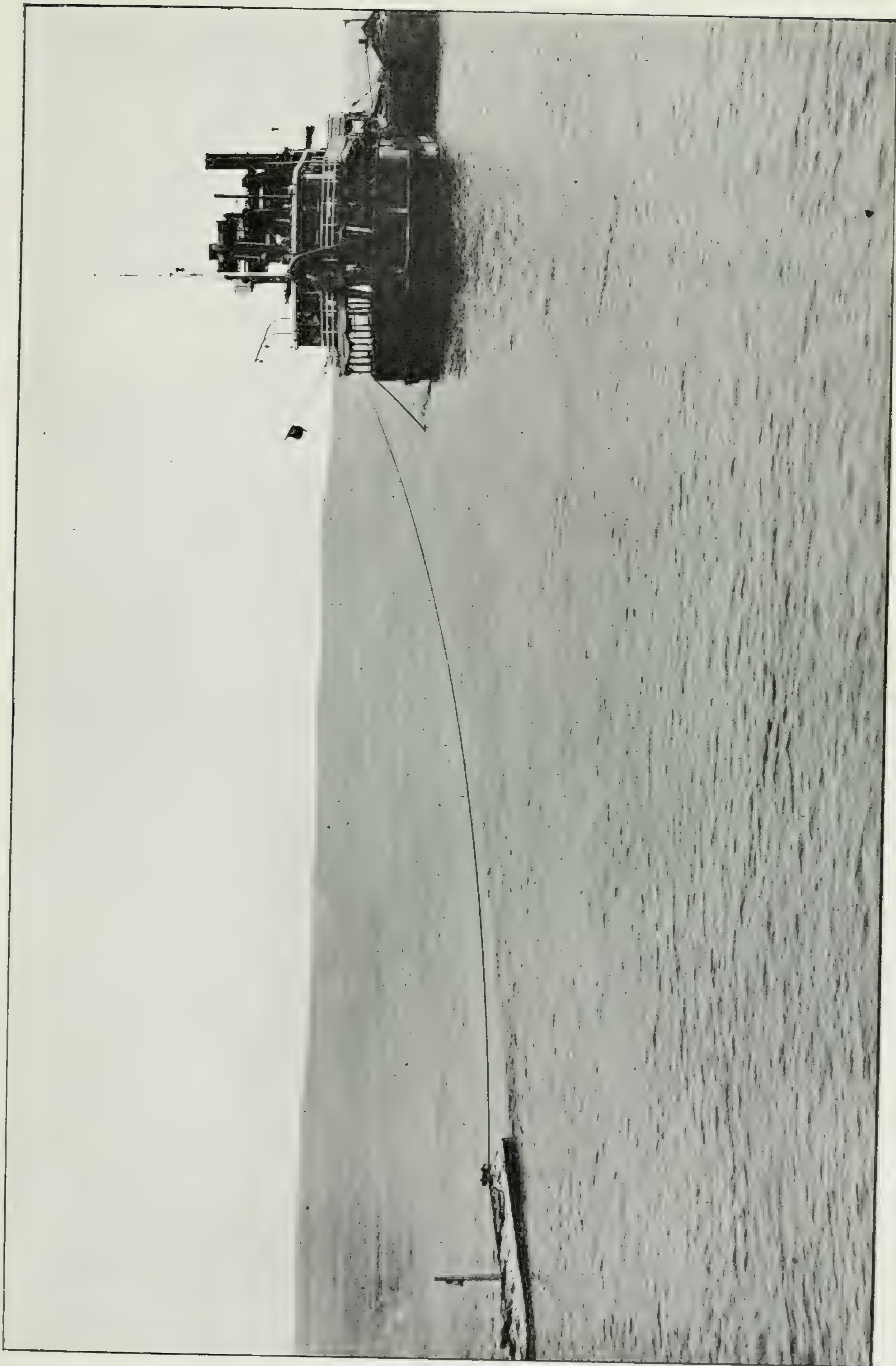
DOUBLE BOW-BREASTING WINCH ON MAIN DECK, USING STEEL WIRE CABLES, HYDRAULIC DREDGE NO. 7.



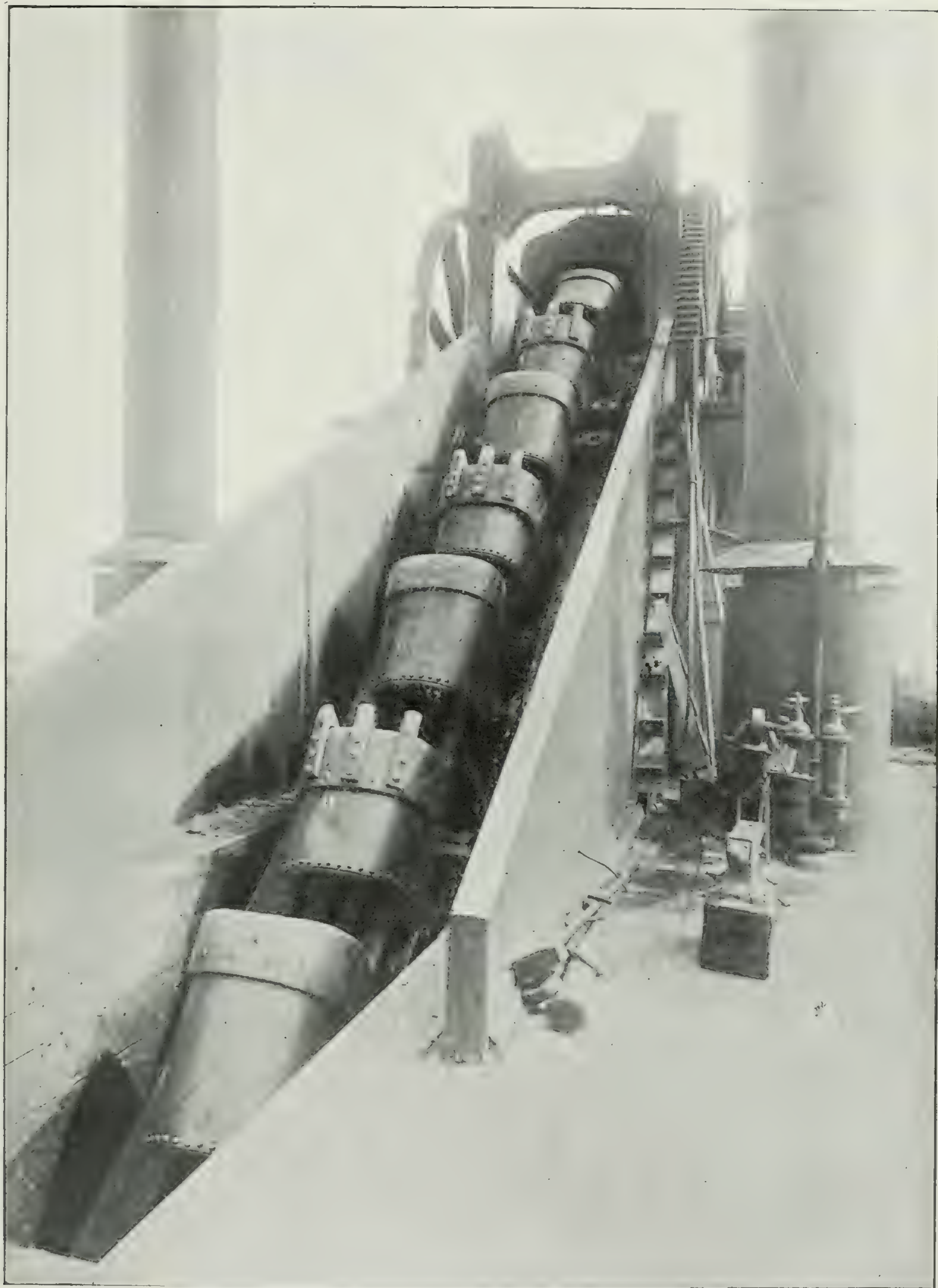
ELEVATOR DREDGE NO. 3, SHOWING BUCKET FRAME, CAST STEEL BUCKETS, DRIVING GEAR AND CHUTE.



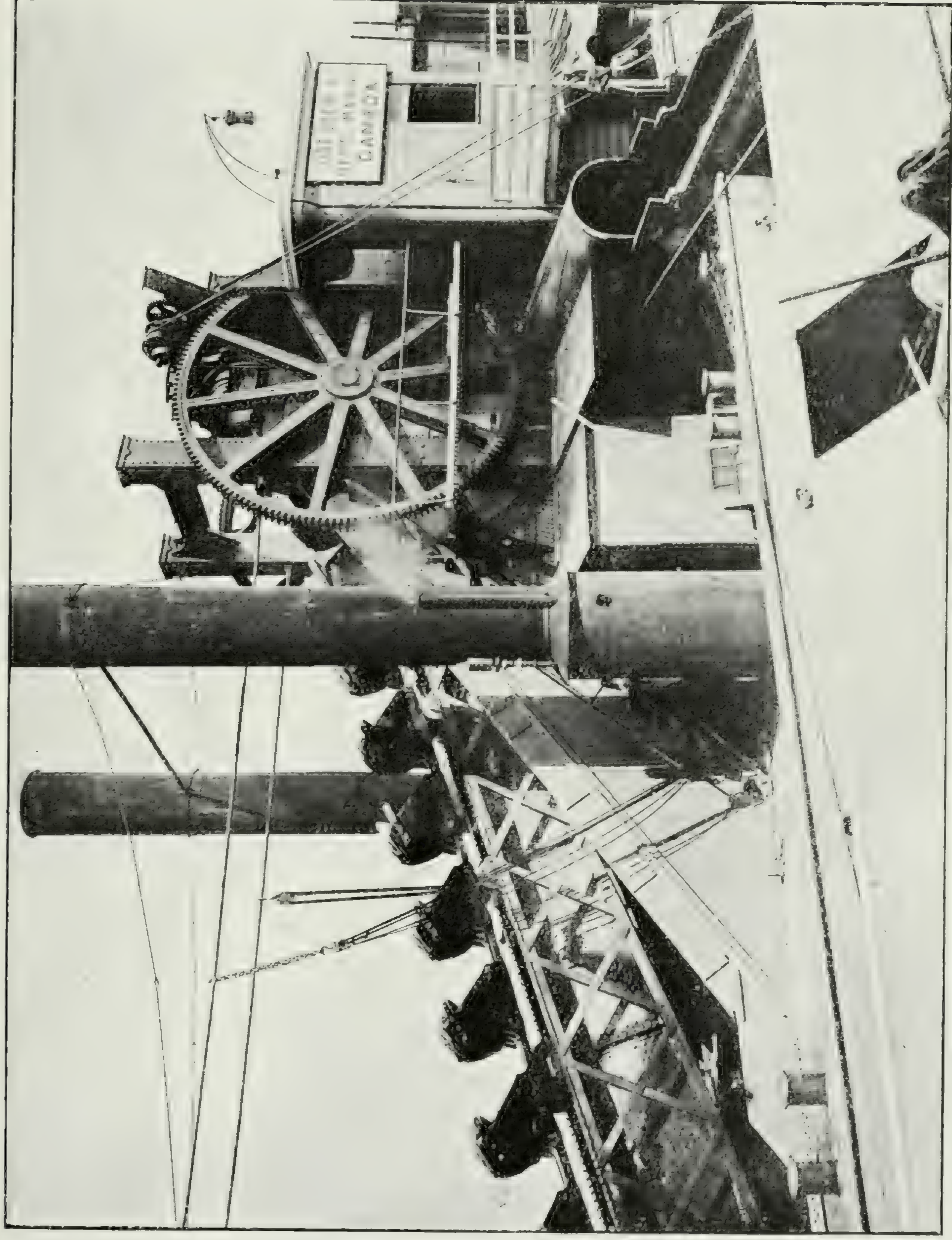
ELEVATOR DREDGE, WOODEN HULL, WITH SCOW AND TUG.



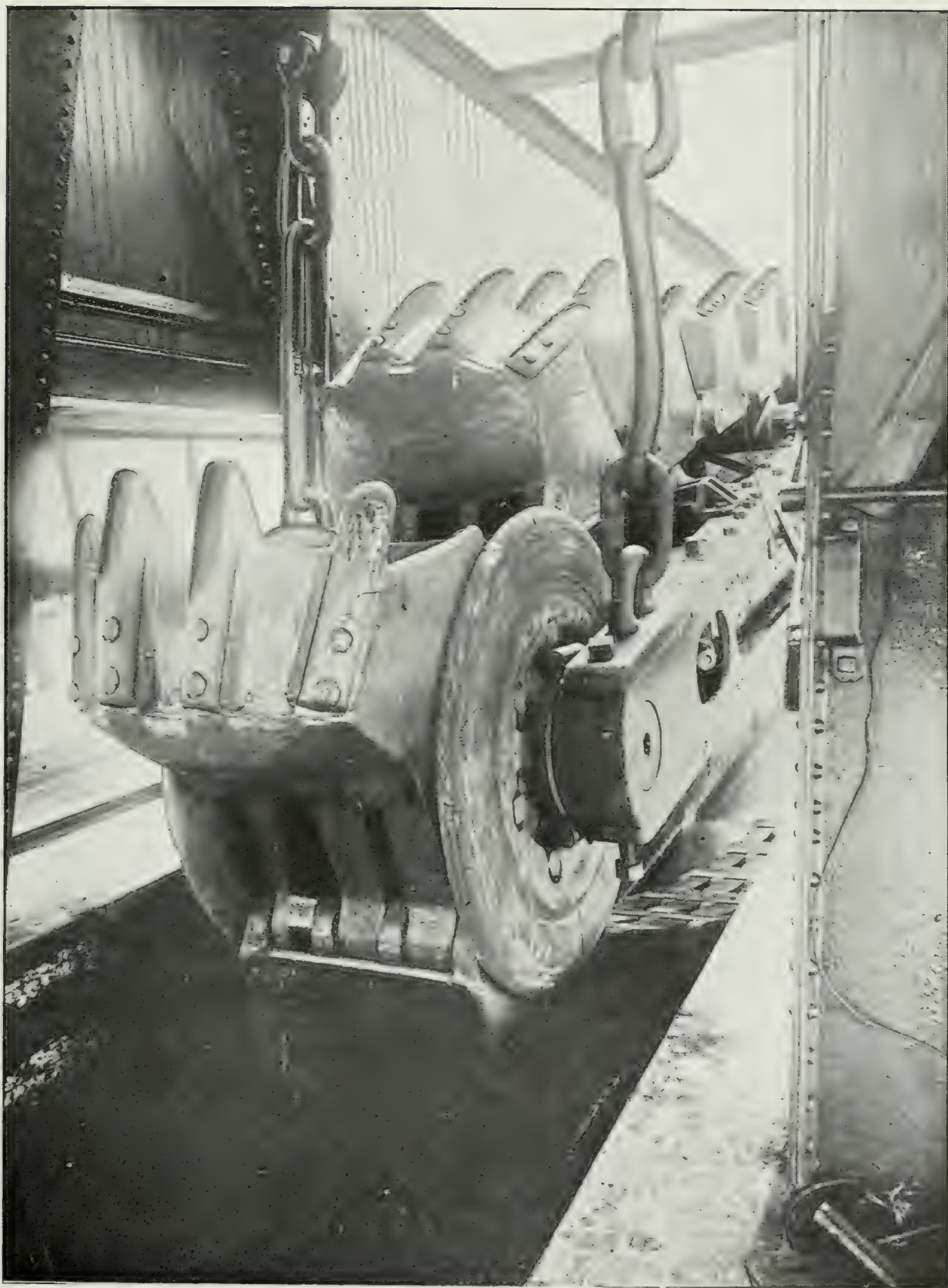
ELEVATOR DREDGE, SHOWING MANNER OF FLOATING BOW CABLE TO PERMIT OF WIDE RADIAL CUT BEING MADE,



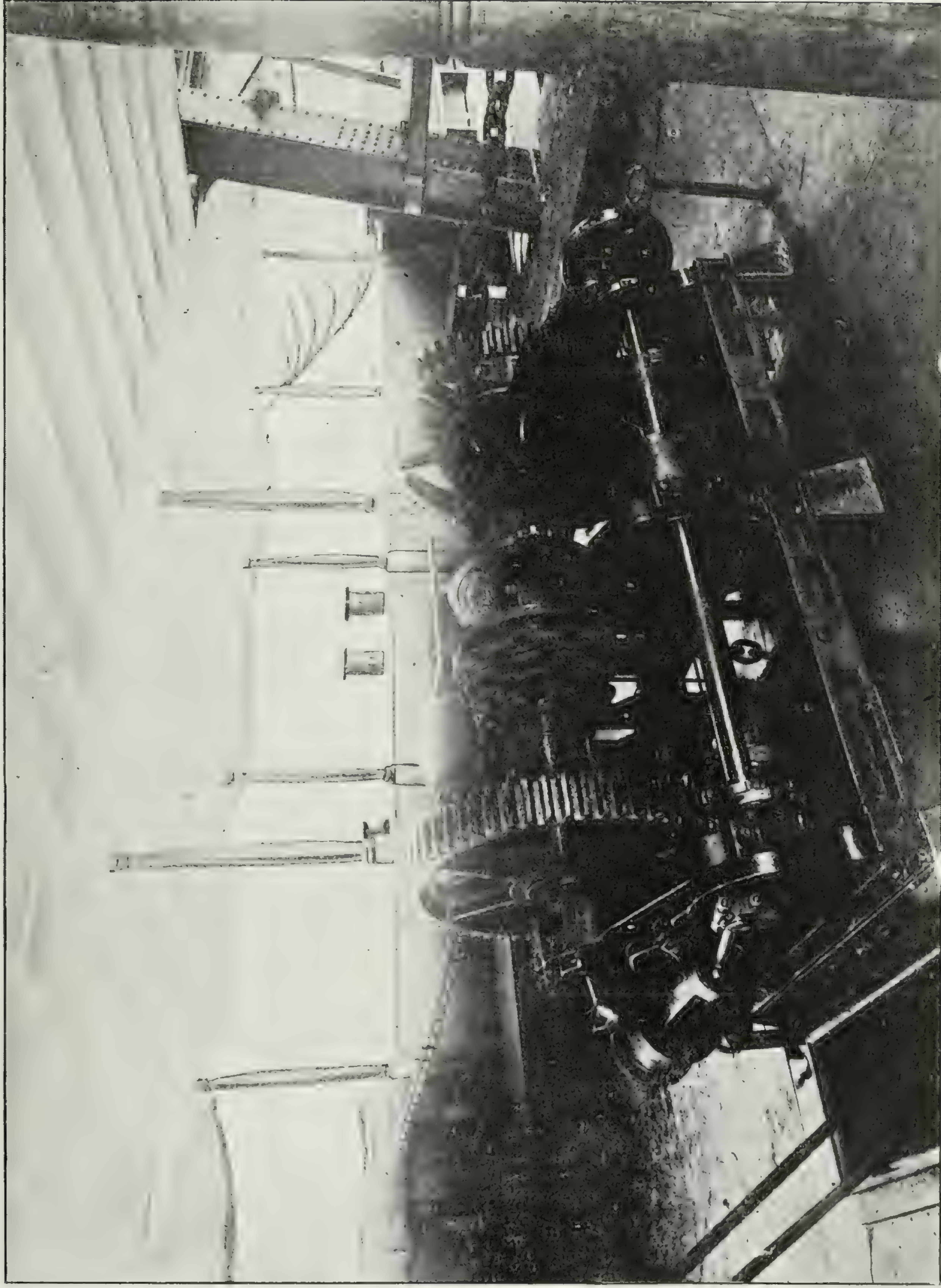
ELEVATOR DREDGE "LAURIER," No. 2, SHOWING BUCKETS FOR ORDINARY HARD MATERIAL.



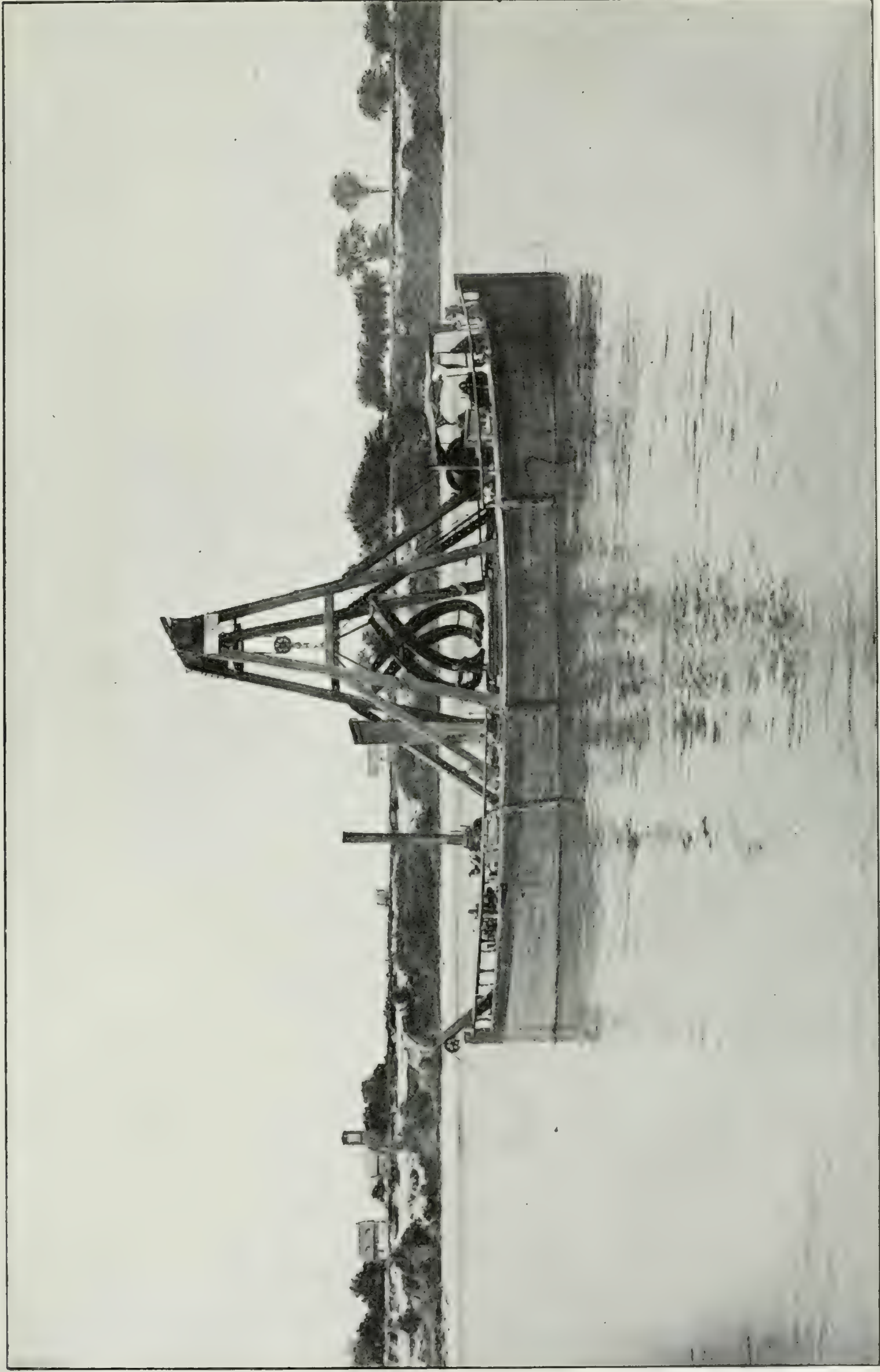
STEEL ELEVATOR DREDGE, NO. 3.



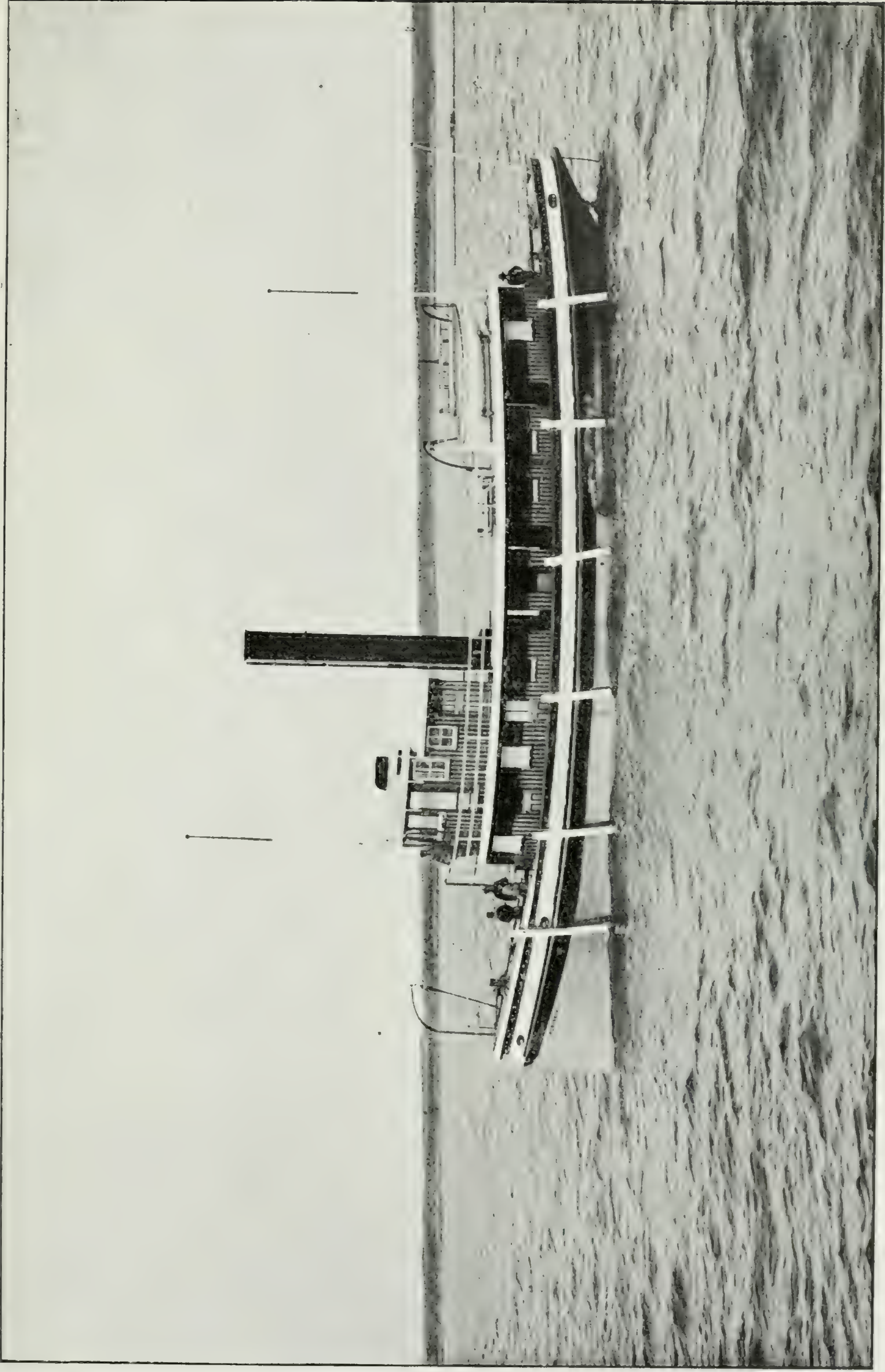
ELEVATOR DREDGE, SHOWING CAST STEEL BUCKETS FOR WORK IN SOFT ROCK, LOWER TUMBLER AND CONNECTIONS.



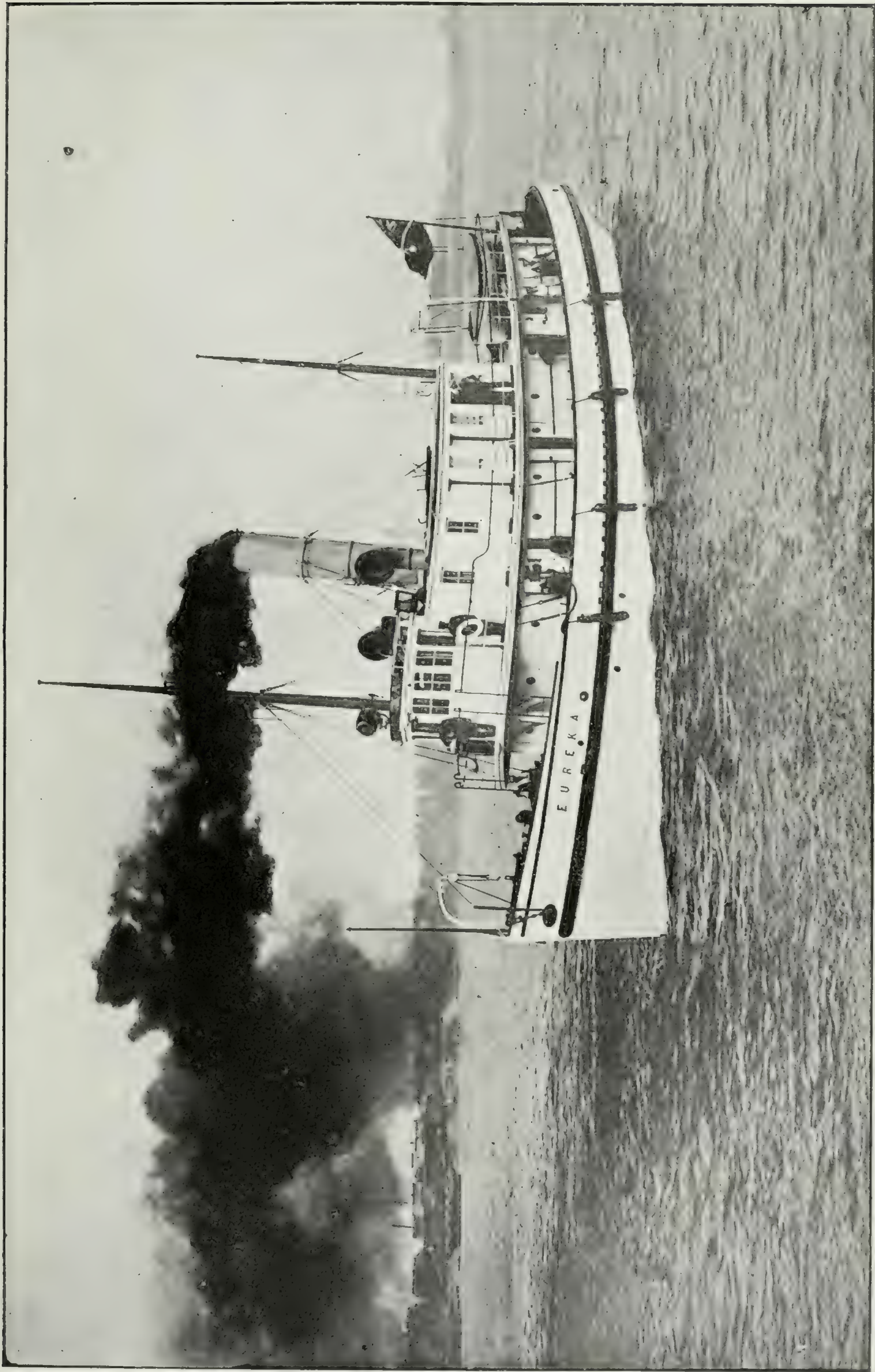
ELEVATOR DREDGE, SHOWING DOUBLE BOW-BREASTING WINCH.



STONE LIFTER NO. 3, SHOWING GRIPS CAPABLE OF LIFTING BOULDER WEIGHING 50 TONS.



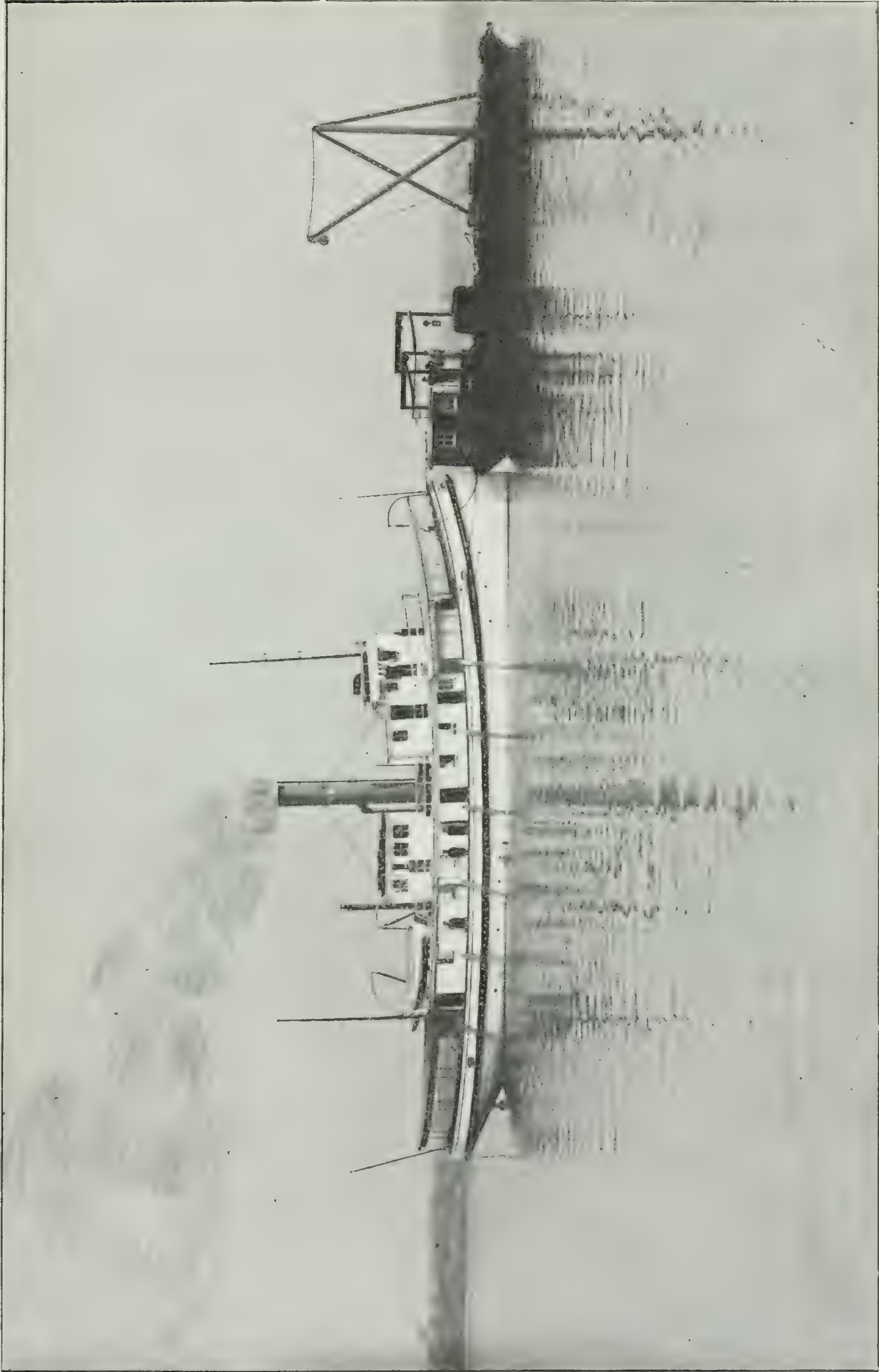
DREDGE TUG "PORTNEUF."



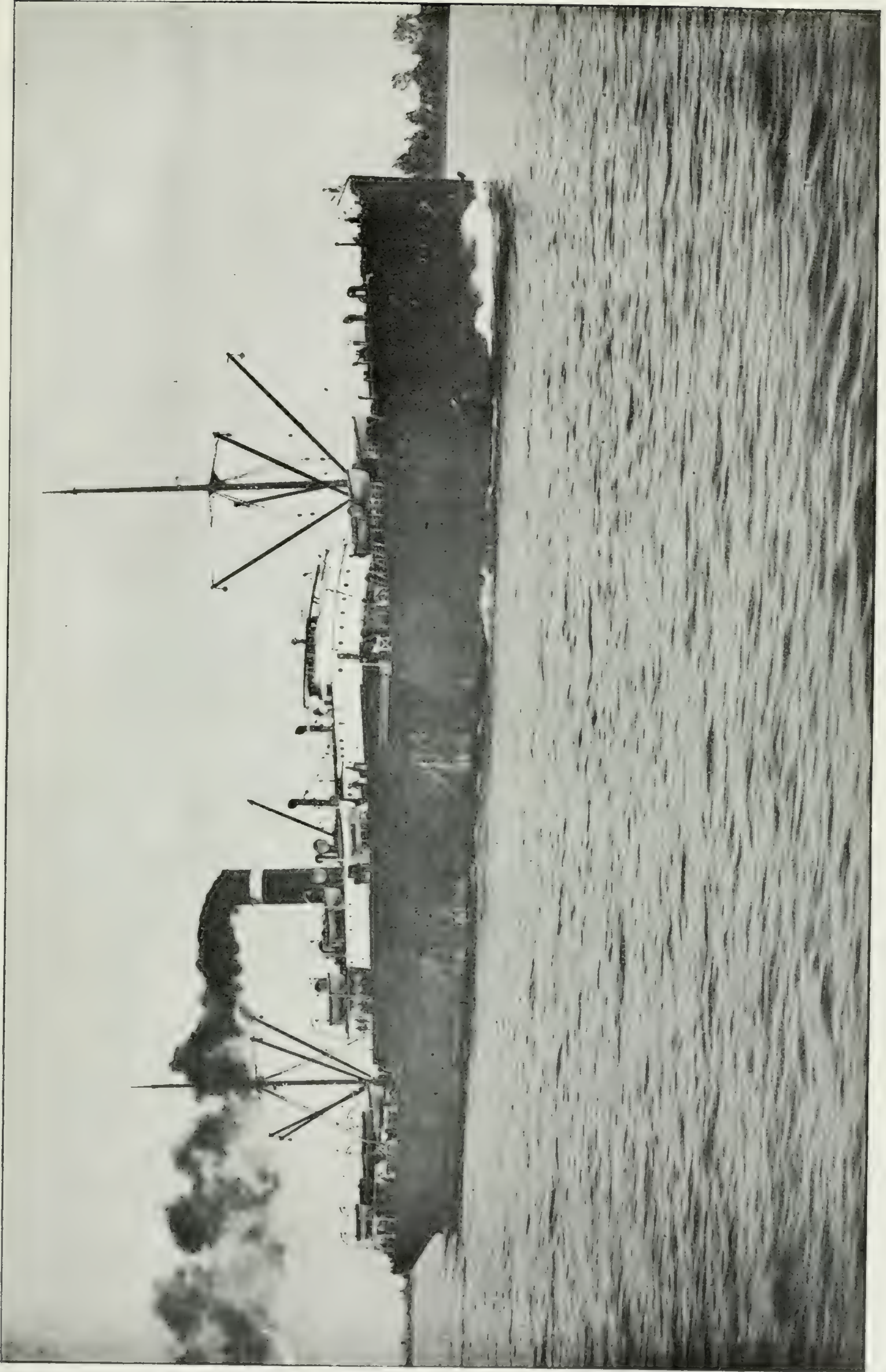
TUG "EUREKA."



INSPECTION TUG "FRONTENAC."



SWEEPING OUTFIT.



TYPE OF PASSING STEAMER.

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Average draught, 9 feet.
Built at Sorel shipyard in 1901.

The Tug 'Eureka' (steel hull).

Length over all, 100 feet.
Breadth of beam, 22 feet.
Depth of hold, 12 feet.
Average draught, 11 feet.
Built in Glasgow, Scotland, in 1893.

The Tug 'James Howden' (wooden hull).

Length over all, 100 feet.
Breadth of beam, 21 feet.
Depth of hold, 10 feet.
Average draught, 7·5 feet.
Built at Sorel shipyard in 1903.

The Tug 'St. Jean-Iberville' (steel hull).

Length over all, 90 feet.
Breadth of beam, 18 feet.
Depth of hold, 12 feet.
Average draught, 10 feet.
Built at Sorel shipyard in 1897.

The Tug 'Lac St. Pierre' (wooden hull).

Length over all, 100 feet.
Breadth of beam, 21 feet.
Depth of hold, 10 feet.
Average draught, 7·6 feet.
Built at Sorel shipyard in 1901.

The Tug 'St. Francis' (wooden hull).

Length over all, 80 feet.
Breadth of beam, 17 feet.
Depth of hold, 10·8 feet.
Average draught, 9 feet.
Built in 1875.

The Tug 'Cartier' (wooden hull).

Length over all, 84 feet.
Breadth of beam, 18 feet.
Depth of hold, 9·5 feet.
Average draught, 8 feet.
Built at Sorel shipyard in 1893.

The Tug 'Emilia' (wooden hull).

Length over all, 84 feet.
Breadth of beam, 17 feet.
Depth of hold, 9 feet.
Average draught, 7·5 feet.
Built at Sorel shipyard in 1898.

The Tug 'Champlain' (wooden hull).

Length over all, 84 feet.
Breadth of beam, 17 feet.
Depth of hold, 9 feet.
Average draught, 7·5 feet.
Built at Sorel shipyard in 1901.

The Tug 'Jesse Hume' (wooden hull).

Length over all, 72 feet.
Breadth of beam, 17·3 feet.
Depth of hold, 10 feet.
Average draught, 8·5 feet.
Built in Buffalo in 1878.

The Tug 'Montcalm' (wooden hull).

Length over all, 80 feet.
Breadth of beam, 23 feet.
Depth of hold, 8 feet.
Average draught, 6·5 feet.
Built at Sorel shipyard in 1903.

The Tug 'Carmelia' (wooden hull).

Length over all, 84 feet.
Breadth of beam, 17 feet.
Depth of hold, 9 feet.
Average draught, 7·5 feet.
Purchased in 1903.

COAL BARGES.

The Coal Barge 'No. 1' (wooden hull).

Length over all, 120 feet.
Breadth of beam, 24 feet.
Depth of hold, 10 feet.
Built at Sorel shipyard in 1898.

The Coal Barge 'No. 2' (wooden hull).

Length over all, 125 feet.
Breadth of beam, 25 feet.
Depth of hold, 11 feet.
Built at Sorel shipyard in 1900.

The Coal Barge 'No. 3' (wooden hull).

Length over all, 98 feet.
Breadth of beam, 28 feet.
Depth of hold, 12 feet.
Built at Sorel shipyard in 1902.

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The Coal Barge 'No. 4' (wooden hull).

Length over all, 98 feet.
 Breadth of beam, 28 feet.
 Depth of hold, 12 feet.
 Built at Sorel shipyard in 1903.

Stone-lifter 'No. 2' (wooden hull).

Length over all, 80 feet.
 Breadth of beam, 25 feet.
 Depth of hold, 9·8 feet.
 Rebuilt at Sorel shipyard in 1897.

Stone-lifter 'No. 3' (wooden hull).

Length over all, 108 feet.
 Breadth of beam, 34 feet.
 Depth of hold, 14 feet.
 Built at Sorel shipyard in 1903.

Sounding Scow (wooden hull).

Length over all, 60 feet.
 Breadth of beam, 25 feet.
 Depth of hold, 6 feet.
 Built at Sorel shipyard in 1898.

Coal Scow 'No. 2' (wooden hull).

Length over all, 54 feet.
 Breadth of beam, 18 feet.
 Depth of hold, 4 feet.
 Built at Sorel shipyard in 1892.

Six Lodging Scows (wooden hulls).

Rebuilt from old dump scows and fitted out as lodging scows for crews of dredges and tugs of ship channel fleet, at Sorel shipyard in 1899, 1901, and 1902.

HOPPER SCOWS.

1 Hopper Scow (wooden hull) with hydraulic power for closing gates.

Length over all, 97 feet.
 Breadth of beam, 24·5 feet.
 Depth of hold, 9 feet.
 Capacity, 200 cubic yards.
 Built at Sorel shipyard in 1897.

2 Hopper Scows (wooden hulls) with hydraulic power for closing gates.

Length over all, 90 feet.
 Breadth of beam, 18 feet.
 Depth of hold, 7 feet.
 Capacity, 150 cubic yards.
 Built at Sorel shipyard in 1898.

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4 Hopper Scows (wooden hulls) with hydraulic power for closing gates.

Length over all, 97 feet.
Breadth of beam, 24 feet.
Depth of hold, 9 feet.
Capacity, 200 cubic yards.
Built at Sorel shipyard in 1899 and 1901.

5 Hopper Scows (wooden hulls) with hydraulic power for closing gates.

Length over all, 98 feet.
Breadth of beam, 24 feet.
Depth of hold, 9·5 feet.
Capacity, 300 cubic yards.
Built at Sorel shipyard, 2 in 1901, 3 in 1902.

2 Hopper Scows (wooden hulls) with hydraulic power for closing gates.

Length over all, 97 feet.
Breadth of beam, 24·5 feet.
Depth of hold, 9 feet.
Capacity, 300 cubic yards.
Built at Sorel shipyard in 1903.

SOREL SHIP YARD.

The work done at the Sorel shipyard during the fiscal year ended June 30, 1905, as reported by Mr. G. J. Desbarats, Director of Ship Yard, was as follows:—

NEW CONSTRUCTION.

Dredge 'W. S. Fielding.'—This is a steel, twin screw, hopper dredge constructed for the Department of Public Works. The hull is 250 feet long by 42 feet beam by 18 feet depth. She is equipped with a chain of elevator buckets and with a suction pipe and is designed to dredge in 60 feet of water.

During this year the plating of the hull was finished, the upper works were built, the buckets were made and placed, the engines were put into position and all the piping and connections for steam and hydraulic work were installed. The dredge was fully equipped by the end of the fiscal year and ready for her trial, which took place in July, 1905.

Tug 'Storm King.'—This is a sea-going tug belonging to the Department of Public Works. She was rebuilt at the Sorel shipyard during the year. The woodwork of the old hull was cut down to about the water line and rebuilt, the shape of the hull and her draught of water being changed.

A new Scotch marine boiler, 11 feet 6 inches diameter by 8 feet 6 inches in length with 3 furnaces 32 inches diameter, was built at the Sorel shipyard and installed in this boat.

The engine was taken out, thoroughly overhauled and strengthened, and replaced again in the vessel.

A new surface condenser was installed with an entire new system of piping. All the inside of the vessel was repaired and new cabins were built.

A steam steering gear and steam winch were installed and the vessel left Sorel in the spring of 1905 and has been working satisfactorily since that time.

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Tug 'Portneuf.'—This is a wooden vessel 85 feet long over all, 17 feet 3 inches beam with a depth of 9 feet 9 inches. The main engine was compounded from the single cylinder engine of the dismantled tug *St. Francis*. It is a steuple compound with high pressure cylinder 11 inches diameter, low pressure cylinder 20 inches diameter, stroke 20 inches. A new marine cylindrical boiler 8 feet 6 inches diameter by 8 feet 6 inches long with 2 furnaces 31 inches diameter was built at the shipyard for this vessel. She has accommodation for both day and night crew. This vessel was begun in February 1905, and was well advanced at the end of the fiscal year, being finished in August 1905. She is to be used in connection with the dredging fleet of the River St. Lawrence Ship Channel.

Dump scows.—The dump scows 93 feet long by 25 feet beam, with a depth of 9 feet and a capacity of 200 cubic yards, were built for the use of the St. Lawrence Ship Channel dredging fleet. These scows were built of Douglas fir and are provided with hydraulic cylinders for opening and closing the doors of the hoppers.

Machine shop scow.—A scow 100 feet long by 24 feet beam and 9 feet depth was built to serve as a floating machine shop with the St. Lawrence Ship Channel fleet. The hull of this scow was completed by the end of the fiscal year but the house had not yet been built and the machinery had yet to be installed.

REPAIR WORK.

Dredge 'J. Israël Tarte' (No. 7.)—This is the hydraulic dredge belonging to the St. Lawrence Ship Channel fleet.

Four marine cylindrical boilers were installed in this dredge. Two of them were made by the Bertram Engine Works, of Toronto, and two by John Inglis & Son, also of Toronto.

Two of these boilers were received in the month of July and two at the end of August. They were installed on the dredge, a new system of steam piping connected to them, the smoke stacks erected and the cabin work finished. These boilers gave a good deal of trouble and heavy repairs had to be made to them during the winter.

Dredge 'Laurier' (No. 2.)—This is a wooden dredge belonging to the St. Lawrence Ship Channel. The hull was rebuilt from the water line up and cabin accommodation was added for the night crew.

Tug 'Cartier.'—This is a tug belonging to the dredging fleet. The cabin work was rebuilt so as to add accommodation for the night crew.

NEW BUCKETS.

A complete set of new solid steel rock buckets was built for dredge *Lafontaine* (No. 5) including new links, upper and lower tumblers, rollers, &c. The buckets of dredge *Baldwin* (No. 6) were rebuilt and new buckets, tumblers, &c., were furnished for the other dredges.

MAINTENANCE OF FLEET.

A large part of the work done at the Sorel shipyard consists in the maintenance of the vessels of the St. Lawrence Ship Channel dredging fleet. The hulls and machinery of these vessels were maintained in good condition during the fiscal year 1904-05, and all necessary repairs were made to them.

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REPAIR WORK FOR DEPARTMENT OF PUBLIC WORKS.

Several of the vessels belonging to the dredging fleet of the Public Works Department were repaired at the Sorel shipyard during the year 1904-05.

The dredge *International* had a storm deck constructed over her machinery to enable her to be sent to the Lower St. Lawrence. Her spuds were changed and her broken crane repaired.

The dredge *St. Louis* and her dump scows and the tugs *Ottawa* and *Daisy* were hauled out and repaired during the year.

HAULING OUT.

The slip ways of the shipyard were kept busy during the year, hauling out various vessels of the dredging fleet for repairs.

During the winter 1904-05, the following vessels were hauled out and kept out for the winter for heavy repairs :—Dredge *Nithsdale*, Lake St. Peter lightship No. 1, tug *Daisy*, tug *Champlain*, tug *Ottawa*, two dump scows belonging to dredge *St. Louis*, tug *St. Francis*, two lodging scows.

HYDROGRAPHIC SURVEY.

The steamer *de Lévis* attached to the hydrographic survey of the River St. Lawrence, was also kept in repair.

Three boats for survey work, each 30 feet long, were built at the shipyard.

LIGHTHOUSE SERVICE.

Four steel, light towers were built for the lighthouse service between Montreal and Quebec.

Fuel and materials were furnished to the vessels engaged on this service and necessary repairs to these vessels were effected.

SUCTION HOPPER DREDGE FOR BELOW QUEBEC.

Work was begun on the plans of a steel, twin screw, hopper, suction dredge for the fleet of the St. Lawrence Ship Channel. Some preparatory work was done on the scaffolding for the building of this dredge, and some steel was ordered.

IMPROVEMENTS TO SHIPYARD.

Plans were drawn out for an electric sub-station for the shipyard. This sub-station is to be used to convert the alternating current, received at high voltage from the Sorel Electric Company, into low potential alternating current and direct current suitable for power and lighting purposes in the shipyard. Work was begun on the construction of this power house.

A new wharf was begun to take the place of the old railway wharf which existed at the lower end of the shipyard. This old wharf had become dangerous and had to be replaced. The new wharf will be 250 feet long and will add greatly to the conveniences of the shipyard.

All the buildings of the shipyard were painted and all the machinery was maintained in a good state of efficiency.

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APPENDIX No. 4.

ANNUAL REPORT OF THE OFFICER COMMANDING MARINE
STEAMERS, &c., OF CANADA.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit a report on the several services under my superintendence. These services embrace the following branches at headquarters :—

Wireless Telegraphy,	Pilotage,
Dominion Steamers,	Investigations into Wrecks,
Dominion Cruisers,	Fisheries Intelligence Bureau.

Separate reports on wireless telegraphy and investigations into wrecks, form Appendices hereto and the reports on the work of Dominion cruisers and Fisheries Intelligence Bureau, will be found in the Fisheries Report.

I have much pleasure in testifying to the good work done by captains and officers of the various vessels under my command during the past year.

The following vessels comprise the Dominion steamer fleet. These vessels are employed nearly inclusively in lighthouse and buoy work :—

<i>Lansdowne,</i>	<i>Lady Laurier,</i>	<i>Frontenac,</i>
<i>Aberdeen,</i>	<i>Gulnare,</i>	<i>Shamrock,</i>
<i>Druid,</i>	<i>Minto,</i>	<i>Scout,</i>
<i>Brant,</i>	<i>Stanley,</i>	<i>Bayfield,</i>
<i>Quadra,</i>	<i>Maisonneuve,</i>	<i>Reserve.</i>

The steamers *Minto* and *Stanley* keep communication open between Prince Edward Island and the mainland during the winter.

The *Gulnare* is employed in the tidal survey work, and a synopsis by Doctor W. Bell Dawson of the work done by her will be found in the chief engineer's report.

The *Gulnare* was employed at survey work in the River St. Lawrence, under Mr. J. W. Stewart, during the season of 1905.

The *Maisonneuve* is principally employed under the commissioner of lights in patrolling the channel between Kingston and Quebec for the purpose of ascertaining if the buoys, &c., are in position.

The *Bayfield* is employed, under Mr. W. J. Stewart, officer in charge of the hydrographic surveys, in Lake Superior. A full report of his work will be found elsewhere.

The *Frontenac* is a powerful tug, employed in the St. Lawrence ship channel, under the direction of Mr. Cowie.

The *Shamrock* is employed under Mr. U. P. Boucher, agent of the Department of Marine and Fisheries in Montreal, in the buoy service between Montreal and Quebec.

The *Scout* and *Reserve* are two vessels employed under the commissioner of lights, in the lighthouse and buoy service between Montreal and Kingston.

The cruiser fleet consists of the following ships, and a report of the work done by each will be found in the Fisheries Report :—

<i>La Canadienne,</i>	<i>Osprey,</i>	<i>Falcon,</i>
<i>Petrel,</i>	<i>Curlew,</i>	<i>Kestrel,</i>
<i>Canada,</i>	<i>Constance,</i>	<i>Vigilant,</i>

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The following are the dimensions, speed, armament, &c., of the different vessels controlled by this department :—

‘ MINTO.’

The *Minto* is an iron steamer 225 feet long, 32 ft. 6 in. beam, and 20 ft. 3 in. depth, with a gross tonnage of 1,099 tons, indicated horse power 2,900. She is commanded by Captain A. Finlayson and, as before stated, she is principally employed in keeping winter navigation open between P. E. Island and the mainland, but during the past season she has been very actively employed in assisting in the erection of the different Marconi stations in the Gulf and River St. Lawrence, and also in testing the capabilities of these stations in regard to the distance communication can be carried on. This vessel is fitted with the Marconi apparatus.

‘ LANSDOWNE.’

The *Lansdowne* is a wooden steamer, commanded by Captain Bissett, employed in lighthouse and buoy work in the Bay of Fundy. She recently had new boilers fitted and she is now ready for a considerable period of further service. She is 188 feet long, 32 ft. wide, 15 ft. deep, with a gross tonnage of 680 tons.

‘ GULNARE.’

This vessel is commanded by Captain T. Taylor, and is employed entirely on survey work. Her dimensions are as follows :—

Steel vessel 137 ft. long, 20 ft. 5 in. broad, and 13 ft. 6 in. depth, gross tonnage 262 tons.

‘ MAISONNEUVE.’

The *Maisonneuve* is a screw steamer 75 ft. 7 in. long, 9 ft. 7 in. broad, and depth of hold 7 ft. 3 in., with a gross tonnage of 26 tons.

‘ ABERDEEN.’

This vessel is employed in lighthouse and buoy work in the Quebec agency. She is an iron screw steamer 180 ft. long, 31 ft. broad and 16 ft. deep with a tonnage of 674 gross. This vessel has been fitted with Thorneycroft-Marshall water-tube boilers, and they have given every satisfaction.

‘ PETREL.’

This vessel is a steel screw cruiser 116 ft. long, 22 ft. beam and 10 ft. 3 in. depth, with a gross tonnage of 192 tons. This vessel has done most excellent work in Lake Erie, looking after United States fishermen, but for the last few seasons she has been found too slow to cope with the American steam tugs which are used for fishing purposes on the upper lakes. It was therefore decided to replace her with a very much larger and faster ship, and send the *Petrel* to the Atlantic coast where steam fishing vessels are not in use and she will only have to cope with sailing schooners. She is commanded by Captain Kent.

‘ STANLEY.’

The *Stanley* is an iron screw steamer 207 ft. long, 32 ft. beam, and depth of hold 19 ft., with a gross tonnage of 914 tons. She is commanded by Captain A. Brown. This vessel is principally used to keep communication up between P. E. Island and

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the mainland during the winter season, but like the *Minto*, this year she has been employed in erecting and testing the different Marconi stations placed by the government in the Gulf and River St. Lawrence.

‘BAYFIELD.’

The *Bayfield* formerly the *Lord Stanley*, is a steamer and, as before stated, is entirely engaged in hydrographic work on the upper lakes. She is 140 ft. long, 24 ft. 1 in. broad and depth 11 ft. 6 in. and a gross tonnage of 276 tons. She is a very powerful ocean-going tug.

‘OSPREY.’

This is a sailing schooner, employed in the Fisheries Protection Service on the Atlantic coast. She is 127 ft. long, and was built in Shelburne, Nova Scotia, and for some years was the fastest sailing schooner on the Atlantic coast. She is still very fast but there is no doubt that some of the United States fishing schooners are as good as she is now. She was commanded during the season by Mr. Graham.

‘DRUID.’

The *Druid* is lighthouse and buoy ship employed in the Quebec agency. She is a twin screw steamer 160 ft. long, breadth 30 ft., depth of hold 12 ft. 5 in., with a tonnage of 503 tons, and is fitted with triple expansion engines. She was built by Messrs. Fleming & Ferguson, Paisley, Scotland, in 1903, and is commanded by Captain Koenig.

‘BRANT.’

The *Brant* is employed in the lighthouse and buoy service in Prince Edward Island. This is a wooden steamer 100 ft. long over all, 19 ft. broad and 8 ft. deep. This vessel is also employed in the fisheries protection service when necessity arises. She is commanded by Captain McKinnon.

‘QUADRA.’

This vessel is employed in lighthouse and buoy service in British Columbia. She is an iron steamer 174 ft. long, 31 ft. beam, and a depth of 13 ft. 6 in., with a gross tonnage of 573 tons. She is commanded by Captain Hackett. This vessel, though doing good work on the Pacific, is now not large enough or fast enough for the large number of extra aids to navigation which it is considered necessary to place on this coast, and I would recommend that a vessel more suitable for the work which has to be performed, should be built as soon as possible.

‘LA CANADIENNE.’

This vessel was employed in the protection of the fisheries of the lower gulf, under the command of Commander Wakeham. She is an iron screw steamer 154 ft. long, 22 ft. beam, and 10 ft. 9 in. deep, with a gross tonnage of 372 tons. This vessel, in addition to fisheries protection work, in the fall of the year materially assists the Quebec agency in taking in buoys and in various other kinds of marine work.

‘SHAMROCK.’

This vessel is employed in the buoy service between Montreal and Quebec. She is a steam barge 117 ft. long, 25 ft. beam, and 9 ft. 7 in. deep, with a gross tonnage of 237 tons. She is under the charge of Mr. U. P. Boucher, agent of the Department of Marine and Fisheries in Montreal.

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'CURLEW.'

This is a twin screw iron steamer 116 ft. long, 19 ft. 8 in. wide, and 11 ft. 3 in. deep; gross tonnage, 158 tons. She is employed in fisheries work in the Bay of Fundy and western coasts of Nova Scotia, and is under the command of Captain Pratt. She also assists in marine work when necessary.

'CONSTANCE.'

The *Constance* is a sister ship of the *Curlew* and is employed in revenue work in the River St. Lawrence and Atlantic coast. She is controlled entirely in regard to her movements by the Customs Department, but is managed in reference to expenditure, crew, &c., by this department. She is commanded by Captain May.

'LADY LAURIER.'

The *Lady Laurier* is a twin screw steel steamer, commanded by Captain Johnston. She is 214 ft. 9 in. long, 34 ft. 2 in. broad with a depth of 17 ft. 2 in., tonnage gross 1,051. She is employed in the lighthouse and buoy service on the Atlantic coast and is attached to the Nova Scotia Agency. She was built in 1902 to take the place of the late steamer *Newfield*. She is a very powerful and staunch steamer eminently fitted for the work she has to perform.

'SCOUT' AND 'RESERVE.'

Are two steamers used in connection with the buoy service between Montreal and Kingston. The *Reserve* is used for sweeping the river and is also used for towing scows employed for the purpose of placing buoys in position. The *Scout* is furnished with electric light and a powerful searchlight. Her dimensions are 103 ft. 6 in. long, 25 ft. 6 in. beam, depth 9 ft. 2 in., gross tonnage 175.

'FALCON.'

The *Falcon* is a small steamer employed in the protection of the fisheries in British Columbia waters. She is 70 ft. 7 in. long, breadth, 17 ft. 8 in., depth, 7 ft. 4 in., with a gross tonnage of 71 tons. An account of her work will be found in Inspector Williams' report, in the fisheries part of the departmental report.

'KESTREL.'

The *Kestrel* is also employed in the protection of the fisheries in British Columbia waters. This vessel is 126 ft. long, 24 ft. beam, 12 ft. 2 in. depth, with a gross tonnage of 311 tons. She is a wooden vessel and commanded by Captain Newcomb.

'CANADA.'

In reference to the four new steamers, the *Canada* is a twin screw small third class cruiser with a speed of 21½ miles an hour. She was built by Vickers, Sons & Maxim, at Barrow in Furness, England, is armed with four 1½ pounder quick firing automatic mark 3, 1904 guns: two forward and two aft. Electrically lighted throughout and fitted with a very powerful search light. She arrived from England last September, and has proved a very great success in the work for which she was designed to perform. It is the intention that this vessel should make a cruise to the West Indies during the winter, and proposal is, if possible, to have her attached to the North American Squadron. She carries a crew of 75 officers and men all told, and is fitted with the Marconi apparatus. Her dimensions are as follows:—200 ft. long, 25 ft. beam and 10 ft. 6 in. draft of water, with a gross tonnage of 850 tons. She is commanded by Cap-

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tain Knowlton, and a number of the officers and crew have been through a course of instruction and received 1st class certificates in gunnery. This vessel is also armed in the way of small arms, with the new pattern Ross rifle, and the New Service D.A., Colt's revolvers. It is intended that this vessel should form the nucleus of the proposed Canadian Naval Militia.

'VIGILANT.'

The *Vigilant* is a steel twin screw, small 3rd class cruiser, built by the Polson Iron Works, Toronto. This vessel on her steam trial made a speed of $21\frac{1}{2}$ miles an hour. She is 175 ft. long, 22 ft. beam, and draws 10 ft. of water. She is electrically lighted throughout and fitted with a powerful search light. She carries the same guns and the same small arms as the *Canada*, and is used for the protection of the fisheries on the great lakes in place of the *Petrel*. She is commanded by Captain Dunn. This vessel is the first of her class ever built in Canada, and is a credit in every way to the Polson firm of Toronto. She carries a crew of officers and men all told, of 53.

'MONTCALM.'

Is a screw steel ice-breaker, length over all 252 ft., breadth outside 40·65 ft., depth bottom of keel to top of deck 19·05 ft., displacement 2,130 tons, two sets of triple expansion engines, speed $13\frac{1}{2}$ knots, with 4 Babcock & Wilcox water tube boilers, gross tonnage, 1,432 tons, indicated horse power 3,600, built by Messrs. Fleming & Ferguson, Paisley, Scotland. She is commanded by Captain Belanger.

'CHAMPLAIN.'

Is a single screw steel steamer. Length over all 132 ft., breadth outside 30 ft. 3 in., depth from top of deck to bottom of keel 11 ft. 3 in., displacement 550 tons, indicated horse power 850, her speed at trial $10\frac{1}{2}$ knots, she is fitted with one simple compound, surface condensing engine, and one multitubular Scotch boiler. She is commanded by Captain McGough.

'ARCTIC.'

Is a wooden vessel, 165 ft. 4 in. long, breadth 37 ft. 2 in., depth 20 ft. 2 in., gross tonnage, 762.

This vessel was purchased from the German government in 1903. She returned from the far northern parts of Canada in November last. It was the intention of the department that the *Arctic* should remain in the northern waters for a period of three years, but owing to a break-down in her machinery it was necessary for her to return to Sorel for repairs; it is the intention that she should proceed north again in the beginning of June. A full account of her work will be found in the report of Major Moodie, of the Royal North-west Mounted Police, which will be published as a supplement to the annual report.

In addition to the above ships there are four sea-going steam patrol launches used on the Atlantic coast for the protection of the fisheries, and one on the River St. Lawrence in connection with the aids to navigation.

The officers and crews of the above mentioned ships number about 900 men all told.

I have the honour to be, sir,

Your obedient servant,

O. G. V. SPAIN,

Commanding Marine Service of Canada.

REPORT OF WORK PERFORMED BY THE C. G. S. *MONTCALM* DURING WINTER OF 1904-1905.

December 23, left Quebec with *Montcalm* at 9 a.m., and proceeded up towards Cap Rouge. On the way up met some accumulated ice of about 3 feet in thickness. Ice running freely down the river. Heavy snow storm with a strong breeze from N.E., ice running freely in the river. Men working at the piping arrangement on board.

December 29.—Ice was running regularly up and down the river, and there was no necessity for going out with the ship. Left the wharf at 6 a.m. this morning, and steamed up to Confederation point; found some ice jammed between the Quebec bridge piers, and broke our way through it. We also broke some of the 'batture' ice to make the channel wider. Returned to Quebec at 1 p.m., after having broken some of the 'batture' ice off Beauport. From January 1 up to the 4th of the same month kept in constant communication, by telephone, with official at Cap Rouge, as to the state of the ice. The ice did not stop during these four days, and there was no need of going out to work at it.

January 5.—Left Pointe-à-Carcy wharf at 8 a.m., and proceeded up the river. At 8.40 a.m., met some heavy packed ice, between Sillery point, extending up the river as far as we could see. Worked in that ice until dark, (4.30 p.m.), when it started to run down the river with the tide. Returned to the Pointe-à-Carcy wharf.

January 6.—Left Pointe-à-Carcy wharf at 8 a.m. The weather was very cold, and a very thick vapour rising from the river water. Met some heavy packed ice; steamed through to break it. At noon the ice was running freely, and we returned to the wharf.

January 7.—Strong easterly wind, with blinding snow storm. Having received a telephone message from Cap Rouge, that the ice was not making, we did not go up the river. We steamed through the ice in the harbour, to break it. Returned to the Pointe-à-Carcy wharf at 5.30 p.m. Heavy loose ice running freely in the harbour, on January 8.

January 9.—At 9 a.m., proceeded up as far as the Quebec bridge. I found the ice stationary; worked in it until 4 p.m., but did not succeed in breaking the jam; the ice being packed to height varying from ten to thirty feet. Could not work any longer, on account of the flood tide making.

January 10.—Left Quebec at 9 a.m., being high water, and went up to the ice jam. Found the ice still stationery in the narrowest part of the river, between the piers of the new Quebec bridge. Worked in it during all the ebb tide (7 hours), succeeded in breaking through a distance of three-quarters of a mile in the 'key' of the jame. Impossible to work any longer, on account of the flood tide making: at 4 p.m. returned to Quebec.

January 11.—Left Pointe-à-Carcy wharf at high tide, 11 a.m. Found the ice in the narrowest part of the river still stationary. Worked at it until 5 p.m., the beginning of the flood tide, and in seven hours only broke away a distance of one-third of a mile, the ice being packed to an unknown depth. I have seen pices of twenty and thirty feet breaking away from the main body of the jam. All this ice is jammed and packed; this is caused by the strong current running down in this narrow part of the river. The chief engineer reports that he has experienced some difficulty while in the ice, in having a continual supply of water from the injection pipes of the condensers, as they were often choked by the ice. Returned to the Point-à-Carcy wharf. Weather cold.

January 13.—Impossible to go out yesterday, on account of stormy weather and being short of coal. Before going to work at the jam this morning we broke some ice around Messrs. Dussault & Lemieux' wharf. At twelve noon proceeded up to the ice jam. Worked until dark; at about 5.40 p.m. broke away about three thousand feet of solid packed ice. Weather fine and cold.

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January 14.—Worked one hour for Messrs. Dussault & Lemieux, breaking ice at the end and inside of their wharf. Engineer reports that, while working there, one or two blades of the starboard propeller were broken off. At twelve o'clock noon went up to the Sault, and cleared the ice which had accumulated in the opening made yesterday in the jam. Did very little work in the 'key' to-day.

January 15, 16 and 17.—Went up to break the ice from the jam every day, but did not succeed in breaking a very large quantity; it being so heavily packed that it is difficult to make any headway through it.

On the following days, January 18, 19 and 20, the *Montcalm* was on Messrs. Davie's dock to have new propeller blades adjusted on the shafts.

January 21, 22, 23.—Worked in the ice at the bridge, made little headway. On the 24th we took some bunker coal, as it was impossible to be out with the steamer on account of a thick vapour rising from the river water. Thermometer registered 15 below zero. Did some slight repairs to the engines.

On the 25th, worked for five hours in the jam, on the 26th, six hours, 27th, three hours. On the 28th and 29th, did not do any ice breaking; we were coaling the ship and preparing her to go to the rescue of the D.G.S. *Champlain*, which was afterwards reported safe at her wharf. Rivière Ouelle.

January 30.—Worked in the jam for three and a half hours. The ebb tide was too late to enable us to do work in the day time.

January 31.—Did not leave the wharf; doing repairs on board.

February 1.—Proceeded to the ice jam at 7 a.m. and worked at it for four hours.

February 2.—Remained at the wharf all day, plumbers working on board and the engineers settling engines.

February 3.—Broke away seven hundred feet of old ice from the jam, in the narrowest part of the river. Worked for seven hours.

February 4, 5 and 6.—Kept the ship at the wharf for bunkering purposes, cleaning, &c. I was up at Cap Rouge overland to-day and visited the field of ice. I came to the conclusion that the worst of the ice jam is broken, and it will not be so difficult to break the remainder.

February 7.—Were working for one hour at Messrs. Dussault & Lemieux's wharf before going to break up the ice in the Sault. Did seven and a half hours' work, and cleared away about one mile and a half of ice which had stopped in the cut we had already made on the preceding days, above the site of the new Quebec bridge. Returned to Messrs. Dussault & Lemieux's breakwater, and broke ice during another hour, to prevent their pier from falling into the river.

February 8.—Took bunker coal all day.

February 9.—At 10 a.m. left Pointe-à-Carcy wharf and proceeded up to Cap Rouge, to break off some more ice from the jam. Worked for three and a half hours, and while going astern in clear water, some strange submerged body came in contact with the starboard propeller blades, and broke all them off the shaft. I managed to get the ship back to her berth at Pointe-à-Carcy, and made a special report about the accident to the Deputy Minister of Marine and Fisheries.

March 19.—From February 9, up to this date, the ship was disabled through the loss of her starboard propeller blades. An order for twelve new blades was cabled to Scotland. During this time the ship was lying at Pointe-à-Carcy wharf, and the crew was employed painting the outside and the inside of the ship; the engineers were occupied in overhauling the engines.

March 20.—Took *Montcalm* to G. T. Davie's wharf to prepare the hubs to receive the blades, which are due to arrive to-day.

March 21, 22, 23.—Ship on Davie's dock. Waited two days for the blades. Blades arrived on the third day and were placed on the hubs.

March 24.—At 7.45 a.m., the two blades being fitted on the shaft, we crossed over to the King's wharf. At 9 a.m., weather fine and clear, top high water, we proceeded up the river. We met the jammed ice at about one-fifth of a mile below the site of the

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new Quebec bridge. This ice has formed and accumulated there since February 9, (the last day we worked in the jam). Some of this ice is accumulated to a thickness of twelve feet. The ship is working well except for the same trouble about the water for the injection pipes, which are often obstructed by the ice. Broke away one-third of mile of new accumulated ice. Worked one hour for Messers. Dussault & Lemieux. Returned to Pointe-à-Carcy for the night.

March 25.—Worked seven hours in the jam to-day; did a fair day's work. Engineer reports that there is part of one of the new starboard propeller blades broken, while working in the ice.

March 26.—(Sunday). Did not leave the wharf to-day.

March 27, 28, 29, 30.—Ship was working in the ice jam for about six hours daily. Cleared all the new ice which had formed in the opening previously made, and made a good headway into the old jam. Expect it to break away at the next spring tide, if not sooner, as it has been greatly weakened by the work of the *Montcalm* lately.

April 1.—Took in bunker coal yesterday. Broke about twelve hundred feet of ice, up the river, in the jam to-day.

April 4.—*Montcalm* cut through about one thousand feet of ice in the jam since the first instant.

April 9.—The Honourable Minister of Marine and Fisheries, and a party of his friends were on board to-day, to witness the *Montcalm* in operation in the ice. Went to the ice jam daily since the 4th instant, and cut the ice for a distance of three thousand four hundred feet up stream. The channel is now clear of ice as far as the Pointe-à-Basile, or within a few hundred feet from it. This place is considered to be the narrowest part of the river from the bridge up, and is where the jam is heaviest.

April 13.—Worked daily in the jam, made the channel wider and advanced for a distance of twenty-six hundred feet in the jam, up to date. To-day left Quebec at 11 a.m. Wind easterly, weather fine. Worked in the ice until 3.30 p.m., when the ice bridge moved down 1,000 to 1,500 feet, making ice shoves in the middle and on each shore of the river. At one time the ship was nearly jammed in the shove, but we succeeded in getting through the ice, and went to take shelter very close to the shore, a little below Pointe-à-Basile; keeping the ship outside of the river ice, close in the 'batture' ice. At low water there was only eighteen feet forward.

April 21.—Ship was sheltered below the Pointe-à-Basile since 13th instant, the day of the first movement of the ice, she was kept constantly under steam, and we kept a good lookout for any other movement of the ice. Crew was employed painting, cleansing and repairing during that time. On the 19th, I placed the ship closer to shore, so as to save her from being caught by the heavy ice which has started to move down to-day. On the 20th, the ice again moved down for about one hundred feet. The *Montcalm* is in a safe berth, close to shore. At 7 a.m., this morning, we succeeded in getting the ship out of her berth, and went up as far as St. Nicholas with the ice. Came down with the ebb tide, and reported the ship safe, to Ottawa. We passed between the piers of the new Quebec bridge at 11.30 a.m. The ice was very thick and very thickly jammed there, but moved as we went through; arrived at Pointe-à-Carcy wharf at 12.30 p.m., all well on board. Received orders to prepare the ship to go down in the gulf and help the in-coming steamers through the ice.

I believe that the *Montcalm* has rendered valuable services in assisting to open navigation at an earlier date than usual, when it was left to follow the natural course as in past years. Another result of ice-breaking in the jam is the prevention of the river floods which occurred yearly between Quebec and Montreal, when the channel was blocked by the ice in the jam at Cap Rouge. The very fact of a broad channel, four miles long, cut through a wall of deep ice, must have let out an immense amount of water, which would have, otherwise accumulated above and caused the usual floods. Then again the fact of the ice giving way during the ebb tide for the first time to the knowledge of any man is another important evidence of the work of the *Montcalm*. This is backed by the fact that the ice, when it did come down, was firm, deep and very

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heavy; so much as to block up the passage behind the *Montcalm*. Another evidence of the extraordinary thickness of the ice cut by the ice-breaker is that, when it moved down the river it blocked the channel by actually grounding far out on each side of the river.

After the *Montcalm* got her work well under way, it was observed here in the port of Quebec, by the masters of ferry boats, that the currents were stronger than ever before when an ice bridge existed from Chaudière up; therefore, this is another convincing proof that there was a greater flow of water than there would have been had the channel been blocked as it formerly was when the ice bridge existed its full length and breadth.

Left from Quebec on April 25, and went down the river to the gulf, in the vicinity of Cape Ray. On the 28th, we met the SS. *Manchester*, and gave her assistance through the ice on the way to Sydney, C.B., but she could not follow us.

Arrived at Sydney on the 30th, we received orders from Ottawa to take a cargo of coal for the Marine Department steamers' use in Quebec. Took coal and proceeded to Quebec, where we arrived on Saturday, May 6.

I enclose herewith a statement of the hours of work done by the D.G.S. *Montcalm*.

I must remark that the *Montcalm* was built in a very short time, and having crossed the ocean with very bad weather, she was not in order and prepared to work in the ice when she arrived in Quebec. Her propellor blades were not of the type to work in heavy ice; her injection pipes were placed only twelve feet below her water line, which was not sufficiently low enough to keep the ice from choking them; this stopped the engines very often, therefore she could not develop all her power.

In the month of February last an order was given for new very heavy propellor blades, especially made to work in heavy ice, but they were not put in because they were not ready in time for the spring work. While the *Montcalm* was in the dock during last summer, some of her injection pipes were placed under her bottom so as to prevent them from choking with the ice. By this improvement of the injection and new type of propellor blades, she is working better this winter.

I have the honour to be, sir,

Your obedient servant,

CHARLES KOENIG,

Captain D.G.S. Montcalm.

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Table of the number of trips of the D.G.S. *Montcalm* to the ice bridge, at Cap Rouge and at the site of the Quebec bridge, with hours of work while breaking ice up there.

			Hours.
1904—Dec.	23..	..	2
1904—	“	31..	6
1905—Jany.	5	..	7
1905—	“	6..	5
1905—	“	9..	7
1905—	“	7..	2½
1905—	“	11..	5½
1905—	“	13..	5½
1905—	“	14..	6
1905—	“	16..	4½
1905—	“	17..	6
1905—	“	21..	6
1905—	“	22..	2
1905—	“	23..	7½
1905—	“	25..	5
1905—	“	26..	6
1905—	“	27..	5
1905—	“	30..	3½
1905—Feb.	1..	..	4
1905—	“	3..	7
1905—	“	7..	7½
1905—	“	9..	3½
1905—March	24..	..	7
1905—	“	25..	7
1905—	“	27..	5
1904—	“	28..	4
1905—	“	29..	3½
1905—	“	30..	3½
1905—April	1..	..	4
1905—	“	3..	7
1905—	“	4..	7
1905—	“	6..	5
1905—	“	7..	6
1905—	“	8..	6
1905—	“	9..	5
1905—	“	10..	7
1905—	“	11..	6
1905—	“	12..	6½
1905—	“	13..	5
			208½

Total number of trips, 39; total number of hours, 208½. Number of hours are about equal to thirty ebb tides.

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APPENDIX No. 5.

INVESTIGATION INTO WRECKS.

OTTAWA, CAN., January 15, 1906.

To the Deputy Minister of Marine and Fisheries,
Ottawa, Can.

SIR,—I have the honour to submit my report upon the casualties and accidents that have occurred during the past season of navigation.

Investigation into casualties in the river and gulf of St. Lawrence were held on the following vessels:—

<i>Agnar.</i>	<i>Wastwater.</i>	
<i>Victorian.</i>	<i>Euphemia.</i>	} collision.
<i>Virginian.</i>	<i>Tordenskjold.</i>	
<i>Hosanna.</i>	<i>Universe.</i>	} collision.
<i>Empire.</i>	<i>Bay State.</i>	
<i>Aranmore.</i>	<i>Bavarian.</i>	

The *Corinthian* also grounded in the harbour of Montreal and remained fast for sixteen hours, after which she proceeded on her voyage.

In addition to the above, an investigation was ordered into the casualty to the *Tampican*, but the vessel had left before these instructions could be carried out. On her arrival in England, the master was suspended for three months.

The following casualties were investigated on the Atlantic coast:—

<i>Skidby.</i>	<i>Salerno.</i>	
<i>Parisian.</i>	<i>Christian-Knudsen</i>	} collision.
<i>Albano.</i>	<i>Thrift.</i>	
<i>Pro Patria.</i>		
<i>Turbin</i> —Ship struck, and all hands lost.		
<i>Lunenburg</i> —11 lives lost.		

The following casualties were investigated on Great Lakes:—

<i>Argyle.</i>	
<i>Turbinia.</i>	} collision.
<i>Primrose.</i>	

My instructions are to investigate every casualty of importance and to deal promptly with any carelessness or want of judgment shown by pilots or ship-masters in the navigation of Canadian waters.

The instructions issued to me during last season also covered casualties occurring on the Great Lakes. I found, on inquiring into matters in different localities on the lakes, that it was necessary that strict investigations should be held as far as possible, as in some instances the lack of even moderate attention to the safe navigation of vessels was deplorable. The masters, officers and seamen who man the Canadian vessels on the Great Lakes are, as a rule, skilful and intelligent and compare most favourably with their confreres on salt water, but there is no doubt that inquiries into casualties should be held in the same manner as on the sea-coast.

The total value of the trade by the St. Lawrence for the fiscal year ending June 30, 1905, was \$120,933,554.

The Shipping Casualties' Act has been amended and the following changes have been made:—

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1. A Wreck Commissioner has been appointed to hold investigations in all parts of the Dominion.

2. A statement of the case need not be issued as heretofore, before the commencement of the proceedings, where a certificate is to be dealt with; the defendant's certificate may be cancelled or suspended, after he has been furnished with a copy of a statement of the case and had an opportunity of making a defence.

3. An investigation may be held into the stranding of any vessel, whether damaged or not.

4. Two assessors have been appointed one each, for the ports of Montreal and Quebec; Captain Archibald Reid and Captain John Temple. These officers have been appointed for a term of three years.

A full statement of wrecks and casualties that have occurred during the twelve months ending June 30, 1905, in Canadian waters and to Canadian sea-going vessels in other waters, will be found in the supplement of this report.

In reference to casualties on the St. Lawrence route, during the last season, there has not been a single loss of life and only in one case is there the possible loss of an ocean liner. This compares most favourably with casualties that have occurred in other parts of the world. There were three cases of vessels grounding when leaving their wharves, and three cases of collision. The ship channel cannot be held, in the remotest degree, responsible for any of these. In the case of the *Victorian*, the Court of Inquiry which was held, found that the casualty was an unavoidable accident, which might have occurred in any narrow channel, and to avoid a repetition of a disaster of the same nature, it is proposed to establish telegraphic communication along the route, so that vessels may be held, at gares, in the event of fog shutting down without warning.

The *Agnar*, the *Virginian* and *Bavarian* disasters are attributable to careless navigation on the part of the pilots. The collision between the *Tordenskjold* and the *Euphemia* would have occurred on the open ocean, if one of the vessels had been navigated in the same careless manner. This remark also applies to the *Hosanna-Empire* collision. In the *Wastwater* case, the casualty happened outside the ship channel, altogether, and is again entirely attributable to careless navigation.

The *Bay State-Universe* case is before the civil court, and I make no comment on this at present.

It must be acknowledged that there are difficulties on the St. Lawrence route, but these difficulties are well known and only have to be guarded against. The officers responsible for the navigation of the different vessels, should know the tidal conditions, draught of water of their vessels and the depth and breadth of the channel at the various points and they should, also, recognize the fact that aids to navigation, such as gas-buoys, are simply aids, and that in most cases, (at any rate, below Quebec), the good old stand-by, the compass, assisted by the chart, if properly cared for and looked after, will help them out.

It will be noticed by the attached list of casualties, that there have been eleven casualties on the river and gulf of St. Lawrence; seven on the Atlantic coast; and two on the Great Lakes.

I have the honour to be, sir, your obedient servant,

O. G. V. SPAIN,

Wreck Commissioner.

INVESTIGATIONS INTO WRECKS IN THE GULF AND RIVER ST. LAWRENCE, ATLANTIC COAST AND GREAT LAKES DURING THE SEASON OF 1905.

Skidby.—Bound from Great Britain for Baltimore, U.S.A., in ballast; wrecked on Sable island on January 31, 1905, and became a total loss.

On March 6, 1905, a preliminary inquiry was held in Halifax, Nova Scotia.

A formal investigation was held on April 18 and 19, 1905, when the master alone was found in default.

Parisian-Albano.—Collision in Halifax harbour on March 25, 1905, both steamers bound inward.

A preliminary inquiry was held at Halifax, N.S. The Chief Justice of Nova Scotia decided against the *Albano*. The case has been appealed to the Supreme Court of Canada.

Pro Patria.—Bound from St. Pierre for North Sydney, Nova Scotia, with fourteen passengers and very little cargo; wrecked on south coast of Cape Breton, near Fourche, on May 29, 1905. Declared total loss by marine survey and sold at public auction on June 17, 1905.

Preliminary inquiry held at Sydney, Nova Scotia, on June 15, 1905.

Tampican.—Of the Leyland line, outward bound, with general cargo, went ashore on Longue Pointe shoal, owing to current, while being assisted into fairway by two tugs, on the morning of June 12, 1905.

She was got off on June 16, and proceeded on her voyage to England.

A formal investigation was ordered by the Minister of Marine and Fisheries, but the vessel did not return to a Canadian port.

In August, 1905, it was learned that the Leyland line people in Liverpool suspended the master of the vessel, Captain C. E. Harrison, for three months, the alleged reason being the stranding of the vessel in Montreal harbour.

Agnar.—Grounded within the limits of the harbour of Montreal, on Saturday, June 17, 1905. After lightering a considerable portion of her cargo—coal—the vessel floated early on the morning of June 18, and proceeded to her wharf, apparently no damage occurring to the ship.

Casualty inquired into formally on July 3, 1905, when the pilot in charge, J. Melville Labranche, was adjudged guilty of a grave error in judgment, and fined \$50.

The *Agnar* was proceeding up the river, and while passing the steamer *Ottawa*, which vessel was swinging to head down, the pilot took notice of and endeavoured to make room for the ss. *Polino* coming up astern and overhauling him.

Sulerno.—Stranded on Litchfield shoal, near the entrance to Halifax harbour, on Saturday, July 1, 1905, and became a total loss.

A formal investigation was held at Halifax, N.S., on July 7, 8 and 10, 1905.

Pilot J. W. Fleming, in charge of the ship at the time of the accident, was dismissed from the service.

The court exonerated the master and officers of blame as to the grounding of the ship, but condemned the action of the captain in not availing himself of the help of a tug to try to take his ship off, and recommended that the Norwegian Board of Trade be advised to above effect.

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Aranmore.—Struck a submerged rock about one and a half miles east of Shel-drake point, Gulf of St. Lawrence, on July 9, 1905.

Cause of accident attributed to having struck a rock not shown on Admiralty chart No. 307.

Preliminary inquiry was held at Quebec on August 2, 1905.

Corinthian.—Grounded on south bank, off St. Helen's island, in harbour of Montreal, at 4 o'clock a.m., on July 27, and remained fast for 16 hours, after which proceeded on voyage.

No investigation held, on account of absence of vessel.

Argyle.—Grounded off Corbett's point, near Oshawa, Ontario, on August 9, 1905. The court found that the accident was due to gross carelessness on the part of the master, William Manson, in running the vessel at full speed in a dense fog from Toronto to the time of stranding, and his certificate was suspended for one year, to date from the time of the accident, July 29, 1905.

Turbinia-Primrose.—Collision in Toronto harbour on Saturday, August 12, 1905. A formal investigation was held in Toronto on August 29 and 30.

The *Turbinia* was found in fault, and the certificate of the master, Captain B. W. Bongard, was suspended for a period of nine months, from August 12, 1905, the date of the collision.

Victorian.—Stranded at Cap Charles, River St. Lawrence, on Friday, September 1, 1905, Pilot Laurent Gauthier in charge; Captain Angus McNicoll, master.

Preliminary inquiry was held on Monday, September 18, 1905.

Minister of Marine decided no formal investigation necessary.

The ship was floated on September 12, 1905, and proceeded under her own steam to Quebec, where she was temporarily repaired before sailing for England.

Casualty due to a fortuitous accident.

Virginian.—Belonging to the Leyland line, stranded on Crane Island, River St. Lawrence, on Friday, September 1, Branch Pilot Joseph Pouliot, in charge.

Formal investigation held. Pilot Pouliot found to blame and his certificate suspended for one year, to date from September 1, 1905, the day on which the accident occurred.

Hosanna-Empire.—Collision off Longue Pointe, River St. Lawrence, on Tuesday, September 5, 1905, the *Hosanna* being sunk.

Formal investigation held in Montreal.

The *Empire* (so-called) was found entirely to blame, and the certificate of the master, Oliver Gillespie, who is also owner of the vessel, was cancelled.

Christian-Knudsen-Thrift.—Collision at sea off Cape North, Atlantic ocean, on Tuesday, September 12, 1905.

Preliminary inquiry held at Sydney, N.S.

Formal investigation ordered, but vessels had left before orders could be carried out.

Wastwater.—Outward bound with full cargo of timber and deals, went ashore on the Island of Anticosti, near South West Point, on Wednesday, September 13, 1905.

A formal inquiry held at Quebec.

The *Wastwater* sailed for England almost immediately, before the finding could be delivered, and the evidence taken was forwarded to the British Board of Trade, to be dealt with by that body.

Euphemia-Tordenskjold.—Collision on October 23, 1905, off St. Antoine, River St. Lawrence, about thirty miles west of Quebec.

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A formal investigation was held at Quebec.

Case is now before the civil courts, and finding of Marine Court, for this reason, not yet delivered.

Universe-Bay State.—Her two barges, *Berkshire* and *Bath*, and Montreal Harbour Commissioners dredges Nos. 2 and 3.

Collision in limits of Harbour of Montreal, on Friday, September 29, 1905.

Formal investigation held at Montreal and at Quebec.

Case now before the civil courts. Finding of Marine Court, for this reason, not yet delivered.

Bavarian.—Stranded on Wye Rock, St. Lawrence, on Friday, November 3, 1905. Paul Lachance, a branch pilot for and below the Harbour of Quebec, in charge.

A formal investigation was held at Quebec.

Pilot Lachance was held to blame and his pilot's branch suspended until July 1, 1907.

Turbin.—Total loss on Black Ledge, N.W. of Mud Island, N.S. Unable to hold investigation although all facts were inquired into as far as possible. There were no survivors.

Lunenburg.—Wrecked at Magdalen Island's, became total loss, eleven lives lost. Preliminary inquiry held at Halifax, N.S.

APPENDIX No. 6.

WIRELESS TELEGRAPHY MARCONI STATIONS.

To the Deputy Minister Marine and Fisheries,
Ottawa, Ont.

DEAR SIR,—I have the honour to submit herewith the following report in connection with the installation and operation of Marconi Wireless Telegraph stations in the River and Gulf of St. Lawrence and on the Atlantic sea-board.

Under contract with the government, the Marconi company has, during the past year, erected stations at the following points :—

1. Point Rich, Nfld.
2. Point au Maurier, Que.
3. Camperdown, (Halifax, N.S.)
4. Sable Island.
5. Cape Sable, N.S.
6. Partridge Island (St. John, N.B.)
7. Cape Bear, P.E.I., and has enlarged three stations previously existing at Fame Point, Que., Heath Point, Anticosti, and Cape Ray, Nfld.

By the erection of the two stations at Point Rich and Point au Maurier, and the enlargement of the Heath Point, Anticosti and Cape Ray stations, all of which stations have an effective range of communication of fully 250 miles, a chain of communication has been established and is maintained from Fame Point to Belle Isle, and from Fame Point to Cape Ray. These stations worked most successfully up to the close of navigation, and no difficulty was experienced in establishing and carrying on communication between them.

The importance of this system of communication was frequently demonstrated during the season; captains of steamers equipped with the Marconi apparatus, making liberal use of it to ascertain weather conditions. As the stations are all situated at points admirably adapted for the reporting of shipping information, the exact whereabouts of steamers in the Gulf has frequently been supplied to ship owners at their request. The Belle Isle and Point Amour stations have again proved of great utility during the foggy weather, which frequently prevails in the Straits of Belle Isle. The fact that communication with the shore is available at all times, and that the latest news is supplied ships by these stations has tended to increase the popularity of the St. Lawrence route. Incidentally the passenger traffic has been greater during the past season than at any time in the previous history of the Dominion, and it has been particularly noticeable that vessels equipped with the Marconi apparatus have, during the past year, eclipsed all records in the number of passengers carried.

Intercommunication was established between the stations at Camperdown, Sable island, Cape Sable and Partridge island some four months ago, and communication has since been carried on efficiently.

The erection of a station on Sable island, which communicates regularly with the mainland, has been of the greatest importance. For many years past, the government has deemed it an absolute necessity that the 'Graveyard of the Atlantic' should be in telegraphic communication with the mainland, but have been deterred from laying a cable, owing to the heavy initial expenditure involved and the equally heavy cost of maintenance. It is estimated that the cost of connecting Sable island by cable with

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the mainland would alone have exceeded the entire amount expended by the Marine department to date on wireless telegraphy.

The Marconi station on Sable island fully meets the requirements of the government for communicating with the mainland, and has proved even more valuable than a cable connection, owing to the fact that the station can communicate with all the principal passenger steamers on the North Atlantic, thus rendering it a most effective aid to navigation.

The Marconi stations at Cape Race, Newfoundland, Sable island and Cape Sable, Nova Scotia, have not only proved of great importance to Canadian shipping, but have been keenly appreciated by all shipowners, whose vessels ply between the United States and European ports. Quite recently these stations were extensively utilized by United States steamship agents to inform their steamers of the sinking of the *Nantucket* lightship and to notify captains not to rely as usual, upon sighting this vessel.

A station has also been erected at Cape Bear, Prince Edward Island, which will keep in touch with the government steamers *Minto* and *Stanley*, while they are engaged on the winter service between Prince Edward Island and the mainland.

It was found last year that the employment of the Marconi system on board the *Minto* and *Stanley* resulted in a considerable saving in the running expenses of these boats, and it is believed that with the establishment of a shore station at Cape Bear, this saving will be greatly augmented. The government steamer *Lady Laurier* has also been equipped with the Marconi apparatus during the past year, and it has been found invaluable for the work in which this boat is engaged.

I append herewith a list of the Marconi stations erected in connection with the Marine and Fisheries Department to date, and also of the government steamers equipped with wireless telegraphs:—

Stations.	Steamer.
Fame Point, Que.	D.G.S. <i>Canada</i> .
Heath Point, Anticosti.	D.G.S. <i>Stanley</i> .
Point au Maurier, Que.	D.G.S. <i>Minto</i> .
Point Rich, Nfld.	D.G.S. <i>Lady Laurier</i> .
Point Amour, Labrador.	
Belle Isle, Que.	
Cape Ray, Nfld.	
Cape Race, Nfld.	
Camperdown (Halifax, N.S.).	
Cape Sable, N.S.	
St. John, N.B.	
Sable Island.	
Cape Bear, P.E.I.	

I have the honour to be, sir,
Your obedient servant,

O. G. V. SPAIN.

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APPENDIX No. 7.

HYDROGRAPHIC SURVEY.

December 19, 1905.

To the Deputy Minister,
Department of Marine and Fisheries,

SIR,—I have the honour to report as follows upon the work of the hydrographic survey under my charge, during the past season.

Acting under instructions received from the Honourable the Minister, survey of the lower St. Lawrence river and gulf was commenced this season, and for this service the steamer *Gulnare* was borrowed from the tidal survey under Dr. Dawson.

In 1887, Capt. Maxwell, R.N., completed a survey of the river between Quebec and River Ouelle, and a plan of the channel opposite Hare island. I decided that for the present we would not resurvey any of this work, but rather take on where he left off. The charting of the river between River Ouelle wharf and Cacouna island was therefore undertaken but not completed. This will be taken in hand first thing in the spring, and pushed to completion.

In the late autumn, on my way home, I make a resurvey of Beaujeu channel with a view to reporting upon the necessity for range lights. I found that the shoal, which lies near the middle of the channel, has shifted about nine hundred feet upstream in twenty years, and that the channel is rather shallow for large boats at low water.

It is intended that this survey shall be in charge of Lieut. Irving Miles, R.N., of H.M.S. *Egeria* for the next five years.

I had as assistants Messrs. E. C. Girouard, a recent graduate of the R.M.C., Kingston, and Charles Savary.

The survey of Lake Superior with the steamer *Bayfield* was in charge of Mr. Fred Anderson, assisted by Messrs. A. O. Bourbonnais, R. H. Montgomery and Paul Jobin.

He reports very fair progress under rather trying circumstances and poor weather.

He has carefully sounded the channels amongst the numerous islands between Thunder cape and Nipigon strait, and sounded off shore to meet the survey of that portion of the lake by the United States corps of engineers. The *Bayfield* laid up at Owen Sound on November 7.

In connection with this branch, I have to record the death, on the twenty-first of May last, of Mr. R. E. Tyrwhitt, who was a thorough and conscientious assistant for ten years. At this particular time his loss has been very unfortunate for the survey. Partly owing to his death, and partly owing to the fact that I was compelled to take the field, no chart of Lake Superior can be issued next spring as is usual.

Survey of the St. Lawrence river between Montreal and Quebec was continued and completed by Mr. Arthur Amos, assisted by Mr. Charles McGreevy on the steamer *De Levis* during the season. There was no continuance piece of work to do, but rather the gathering together of small omissions here and there, with some observations for force and direction of currents and declination of the magnetic needle.

The survey of the river from Longue pointe (Montreal) to Quebec is now completed.

This portion of the river will be shown on about twenty charts on a scale of one thousand feet to the inch. One chart has been published and nine more will be by the opening of navigation. The *De Levis* laid up at Sorel, Que.

Survey of Lake St. Francis. This work has been conducted by Mr. Robert Bickerdike, jr., during the last winter and summer, assisted By Messrs. H. D. Parizeau and

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A. A. Gobeil. Fair progress has been made, but nothing will be ready for publication this winter.

Survey of Lake St. Louis is in charge of Mr. Ernest Fusey, who is assisted by Messrs. Alex. Pinet and G. B. St. Pierre. Work this season was in the vicinity of Beauharnois and fair progress has been made, but nothing can be ready for publication this winter.

The Pacific coast survey could not be started last season on account of the impossibility of procuring a steamer and an officer to conduct the survey. Provision is being made to remedy this before the opening of next season.

The full staff is now engaged in working up the season's field notes, and preparing charts for the engraver or lithographer.

I have the honour to be sir,
Your obedient servant,

WM. J. STEWART,
Hydrographer.

APPENDIX No. 8.

LIGHTHOUSE BOARD.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit, herewith, the annual report of the Lighthouse Board of Canada for the year ending December 31, 1905.

The recommendations for improvements to existing aids to navigation, and the establishment of new aids, agreed upon, submitted to the Honourable the Minister of Marine and Fisheries, and approved by him, aggregate the estimated sum of \$681,600, distributed over Canada as follows:—

Quebec (St. Lawrence route)	\$352,500
Lights on the Newfoundland coast maintained by the Gov- ernment of Canada	47,500
British Columbia	136,000
Nova Scotia	67,400
Ontario	40,900
New Brunswick	25,300
Prince Edward Island	7,000
Manitoba	5,000
Total	\$681,600

As will be seen by the amount estimated for expenditure on the St. Lawrence, the policy of the department for extensive improvements along this route has been carried out during the year just closed.

An Order in Council has been passed authorizing Mr. B. H. Fraser, Assistant Chief Engineer of the Department of Marine and Fisheries, to represent the Chief Engineer on the Lighthouse Board, and to act for him generally whenever that officer may be absent from Ottawa; and one to the same effect with regard to Mr. W. H. Noble, Assistant Commissioner of Lights, during the absence from headquarters of the Commissioner of Lights.

I have the honour to be, sir,
Your obedient servant,

W. C. GORDON,
Secretary.

OTTAWA, December 31, 1905.

APPENDIX No. 9.

METEOROLOGICAL REPORT.

METEOROLOGICAL OFFICE,
TORONTO, October, 1905.

Lieut.-Col. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the thirty-fourth annual report of the Meteorological Service of Canada, this report being for the fiscal year, July 1, 1904, to June 30, 1905, with Appendices A and B, reports of St. John and Quebec observatories.

The number of persons in receipt of pay from the meteorological service on June 30, for various duties performed in connection therewith was 185. Of this number twenty are employed in the central office, and with a few at outside stations devote their whole time to the work of the service; others are occupied in observing during only a portion of each day, and others again are employed only to attend to the display of storm signals when notified.

There are now in the Dominion, Newfoundland and Bermuda, 374 meteorological stations using instruments which have been supplied by the government. The observers at 263 of these stations take the observations voluntarily, sending regular monthly returns to the Central Office, and to these persons are due the hearty thanks of the service. At 72 stations, lying chiefly in the far northern territories of Canada, in the wheat belt of the North-west Territories and at lighthouses in the Gulf of St. Lawrence, small gratuities are allowed observers. At 39 stations distributed at nearly equal intervals throughout the Dominion, three or more observations are taken daily, and as the observers are paid salaries, promptness and careful attention to duty are insisted upon. From 34 of these stations, two reports each day are telegraphed to Toronto to be used in the preparation of the daily weather chart.

Since the issue of my last report, the following stations have been opened:—

BRITISH COLUMBIA.

Class I.—Vancouver, T. S. H. Shearman.

“ II.—Rossland, H. R. Townsend.

“ III.—Sanspit, W. D. Goode.

NORTH-WEST TERRITORIES.

Class II.—Dunvegan, Peace River, F. J. H. Bedson.

“ II.—Albion, Alta., T. B. Waite.

“ II.—Fort Vermillion, Peace River, Rev. Alfred S. White.

“ II.—Pekisko, Alta., F. R. Pike.

“ II.—Blackfalds, Alta., G. L. Gregson.

“ III.—Magrath, Alta., W. J. Hopkins.

“ III.—Hanley, Sask., W. D. Maunsell.

“ III.—Insinger, Assa., Robert Lawrie.

“ III.—Herbert, Assa., F. J. Baerg.

“ III.—Kimball, Alta., John Sloane.

“ III.—Dundern, Sask., Henry W. Jones.

“ III.—Alix, Alta., Arthur W. Wright.

“ III.—Jumping Pond, Alta., Cecil E. Byron.

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ONTARIO.

- Class II.—Madoc, W. H. Roger.
 “ II.—Bencroft, W. J. Sargent.
 “ II.—Walkerton, R. C. Cheesewright.
 “ II.—Wallaceburgh, David Le Favor.
 “ II.—Lakeside Home, S. C. Hospital.
 “ III.—Fitzroy Harbour, W. A. Sheriff.
 “ III.—Gower Point, Gilbert Jervais.
 “ III.—Arnprior, George White.
 “ III.—White Fish Pond, James Dunn.
 “ III.—Turtle Dam, James Dunn.
 “ III.—Meward's Bridge, James Dunn.
 “ III.—Masbongsing, Sask., James Dunn.
 “ III.—Britannia Bay, Sydney B. Johnson.
 “ III.—Lake Talon, William J. Shields.
 “ III.—Pinisi Bay, William J. Shields.

QUEBEC.

- Class I.—St. Agathe des Monts, J. Samuel (resumed).
 “ III.—Bryson, A. Mignault.

NEW BRUNSWICK.

- Class II.—Bathurst, Thomas Leahy.

NOVA SCOTIA.

- Class I.—Truro, J. W. Doane (resumed).

PRINCE EDWARD ISLAND.

- Class II.—Summerside, R. S. Bowness (resumed).

YUKON TERRITORY.

- Class I.—Atlin, W. F. Dowling.
 “ II.—White Horse, J. A. Macdonald.

HUDSON BAY.

Fullerton Point, Major J. D. Moodie, N.W.M.P.

In British Columbia the following stations have ceased to report—Matsqui and Midway.

In Ontario—Province Bay, Wesley and Ridgetown.

CENTRAL OFFICE.

During the past year there has been no change in the central office staff, which numbers 20, 18 of whom are permanent employees and two temporary clerks. My assistants have attended to their several duties in a most satisfactory manner, and I have every reason to be gratified with the very evident desire evinced by one and all to carry out my instructions as thoroughly as possible.

I would again respectfully urge that larger salaries be paid to officers and clerks in the meteorological service. The pay now allowed is in most cases not at all com-

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mensurate with the importance of the work performed, and is on a decidedly lower scale than the salaries paid in the United States bureau.

I again respectfully call attention to the absolute inadequacy of the present office building in Toronto for the purposes of the central office; the matter is becoming quite serious. The rooms always were too small for the work performed, and now that they are becoming filled up with records for which we have no further storage room, the trouble is accentuated. The shelves in our library containing meteorological exchanges and reports from all parts of the world were long since quite full, and we can now scarcely find room in odd corners for the constantly arriving numbers.

The encroachments of the University of Toronto on our property have ruined the old site as a suitable exposure for meteorological instruments, and it is only by removing them to the block of land on Devonshire place that I was able to prevent our long series of observations being seriously impaired.

In view of these facts, I would earnestly ask that a new office building be erected with the least possible delay either in Ottawa or Toronto, in order that we may be enabled to carry on the meteorological work under the very best conditions.

It has been my privilege during the past two summers to visit the Central Meteorological offices of the United States, England and France, where I have investigated both methods and results, and I have not the slightest hesitation in affirming that the Canadian forecast work is better than that of any country either in America or Europe. The forecasts issued in Europe are not to be compared with those issued in Canada—this of course being to a large degree owing to the unfavourable geographical position of western Europe. In the United States, the central office at Washington is a large commodious building, surrounded by an extensive open space suitable for the exposure of instruments, and in addition to this another building for meteorological and physical research entirely under the direction of the Weather Bureau is now in course of erection some miles from the capital. It is to be hoped that the Canadian central office will also soon have suitable accommodation.

The climatological report for 1903 has been printed and is now nearly ready for distribution; this report contains the meteorological results obtained at nearly four hundred stations and as all the computations are made in the Toronto office, the work entailed is very great.

A monthly *Weather Review* and a monthly *Weather Chart* have been published with regularity. The *Review* is used very extensively in supplying climatological information to agriculturists, immigrants and to engineers interested in water supply, while the map serves a very useful purpose in retaining the interest of voluntary observers.

The daily weather map has been duplicated by means of the mimeograph—about one hundred copies being distributed to schools and public buildings. It is proposed very shortly to have this map lithographed, as the number of copies issued has reached the limit of the present system, and it has been necessary to refuse many applications for it.

The daily forecasts, as for some years past, have been issued both morning and evening. The latter edition, which is sent out about 10.30 p.m., is published in nearly every morning journal in the Dominion, besides as heretofore being posted up at all telegraph offices; the first message which usually goes over the wires each day being the forecast. The morning forecast covering the current and following day is issued to all parts of the Dominion and continues to grow in favour. It is printed in nearly all afternoon newspapers; at shipping ports it is posted up in conspicuous places, where it may be seen by mariners, and at many of the larger centres of population is duplicated and distributed to business houses and shippers of perishable goods.

A bulletin has each day been despatched to Winnipeg, and thence distributed to the larger agricultural centres of the North-west provinces, and I am informed that it is giving great satisfaction in all districts. For the compilation of this bulletin, in addition to reports from the regular reporting stations, special reports are received from some 22 points in Manitoba, and these altogether are published in a table which

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gives the temperature and weather at 8 a.m.; the highest temperature of the previous day; the lowest temperature during the night and the rainfall, if any, of the past twenty-four hours. Following the table is a statement of the weather conditions of the past day and a general forecast of the probable weather of the following two days. This bulletin has naturally increased the already onerous duties of the forecast officials to a marked extent, besides adding materially to the anxiety which must necessarily be felt by persons whose fallible judgments have constantly to stand the criticism of a public, not always ready to make adequate allowance for failure.

The shippers of perishable goods continue to make frequent use of special forecasts given by telegraph and by telephone, and during the winter season I question whether there is a single shipper in Toronto who does not consult the central office before hazarding a consignment by rail.

Another work undertaken by this office is the despatch of special warnings of snow storms and drift to the various railways of the Dominion. The railway officials most certainly appreciate our endeavours to render service and I doubt not are saved time and money by being forewarned.

The forecast work is performed by the director and Mr. B. C. Webber, together with two assistants, who as yet are but rarely allowed to issue the bulletins.

The telegraphing of the morning forecasts has increased to such an extent during the past year that it has been necessary to have two operators on duty together between 10 and 11 o'clock in the forenoon, and so numerous have become the calls by telephone that it will be expedient to employ a boy whose special duty it will be to answer inquiries.

The stations reporting by telegraph to the central office now number 36, two new stations, Vancouver and Atlin, having been opened during the year, the latter having become very necessary in order to increase the range of the forecasts in the Northwest provinces. The majority of the reports from these stations are forwarded on to the United States Central Bureau at Washington, and in exchange the Canadian service receives 86 reports from American stations each morning and 47 each evening. It is on the information thus received and plotted on a map that the daily forecasts are based, the accuracy of the forecasts depending partly on the worth of the reports forwarded by agents and to a larger degree on the judgment of the official at the central office who issues the bulletins. Such being the case, it is evident that the greatest care should be taken in selecting observers for this important work and also that the forecast staff at the central office should be afforded every opportunity for study and research under the most favourable conditions. Long experience coupled with good judgment and interest in the work are essentials for success in forecasting the weather. It has long been the practice of the Canadian service that the forecast officials should inspect the outside stations, in order that they may have a perfect knowledge of the country and also a complete change from the very trying work of issuing bulletins which are sure to be duly criticized by the public.

The percentage of verification of forecasts is shown by the following table:—

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TABLE I.—NUMBER OF FORECASTS AND PERCENTAGE OF FULFILMENT UNDER EACH DISTRICT, IN EACH MONTH, AND IN THE YEAR, JUNE, 1904, TO END OF JUNE, 1905, INCLUSIVE.

Month.	MANITOBA.				LAKE SUPERIOR.				GEORGIAN BAY.				LOWER LAKE REGION.				OTTAWA VALLEY.			
	Verified.				Verified.				Verified.				Verified.				Verified.			
	Number of Forecasts.	Number fully.	Number partly.	Number not.	Percentage.	Number fully.	Number partly.	Number not.	Percentage.	Number of Forecasts.	Number fully.	Number partly.	Number not.	Percentage.	Number of Forecasts.	Number fully.	Number partly.	Number not.	Percentage.	Number of Forecasts.
1904.																				
July.....	85	73	10	2	91.8	95	72	18	85.1	119	99	16	4	89.9	119	106	9	4	92.9	100
August.....	85	59	22	4	82.4	119	81	25	82.1	128	94	31	3	85.5	127	91	33	3	84.6	117
September..	86	66	16	4	86.0	109	71	26	77.1	114	99	9	6	90.8	114	94	14	6	88.6	101
October.....	88	68	16	4	86.4	105	86	16	89.5	116	97	15	4	90.1	116	96	18	2	90.5	106
November...	84	72	7	5	89.9	117	86	17	80.8	121	100	12	9	87.6	122	108	7	7	91.4	110
December...	85	68	11	6	86.5	101	83	11	87.6	127	95	22	10	83.5	126	101	13	12	85.3	119
1905.																				
January.....	79	73	1	5	93.0	103	82	11	85.0	117	87	18	12	82.1	117	89	15	13	82.5	115
February...	71	66	2	3	94.4	87	68	12	85.1	104	77	19	8	83.2	104	86	9	9	87.0	94
March.....	75	61	10	11	81.2	82	60	15	82.3	100	75	10	15	80.0	100	81	9	10	85.5	94
April.....	74	61	4	9	89.2	88	73	5	85.0	109	82	11	16	80.3	110	74	17	19	75.0	99
May.....	92	71	10	1	85.9	110	78	25	82.3	111	83	19	12	81.1	114	85	17	12	82.0	97
June.....	90	67	14	2	83.3	103	68	25	78.1	117	76	27	11	76.5	117	81	26	7	82.9	106
Total.....	1,004	815	123	66	87.3	1,219	911	209	83.3	1,386	1,064	209	113	84.3	1,386	1,095	187	104	85.3	1,258

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STORM WARNINGS AND FORECASTS.

During the fiscal year, 1,339 storm warnings were issued to the various districts in Canada where signals are displayed, and of the number 1,267 or 94·6 per cent were verified; on 130 occasions, however, the wind did not reach, and on 76 occasions exceeded the force as indicated by the signal displayed; also 79 warnings were received late owing to issue, and 78 on account of delay in transmission.

In connection with the warnings of the probable directions from which the gales would blow were also given and of the 1,267 verified as to force, 904 or 71·3 per cent were fully, and 1,154 or 90 per cent fully and partially verified.

The fall and winter months were marked by many severe storms in the maritime provinces, but timely warning of the approach of these storms was, in nearly every instance, given and no doubt much valuable property was in consequence saved.

Some few additions have been made to display stations in the Gulf of St. Lawrence district, St. Adelaide de Pabos having been opened, and the erection of structures at Barachois de Malbaie and L'Anse au Beaufils commenced.

It having been found that many of our storm signal agents experience great difficulty in hoisting the signals owing to their weight, light wicker-work signals are being gradually substituted for the old painted canvas with very good results and any new masts which may be erected will not require to be so heavy as those of former years. Good progress has likewise been made in substituting electric lights for the old oil lamps and this change will be exceedingly beneficial, as the lamps can remain in position and an agent on receipt of a warning at night will simply turn a switch.

During the past year Mr. Webber, who is now assistant director, has completed the compilation of a report on storms which have occurred between the great lakes and the maritime provinces between the years 1872 and 1904, a most valuable contribution to meteorological research. Other important investigations continued at the Central office have been in relation to the formation of cold waves and also the measurement of atmospheric electricity.

OUTSIDE STATIONS.

Mr. E. Baynes Reed, assisted by Mr. F. N. Denison, continues in charge of the Provincial Chief Station in British Columbia and regular daily forecasts have been issued from Victoria with a gratifying degree of success, notwithstanding the difficulties to be met with on the eastern shores of an ocean, all storms and weather changes coming from the ocean blank.

At Banff, Mr. Sanson has with indefatigable zeal continued to visit the station on Sulphur mountain at nearly regular intervals and the comparison of results obtained at the upper and lower station promise to be most instructive and interesting—Victoria, B.C., Prince Albert, Winnipeg, Montreal, St. John are now supplied with self recording instruments and it is proposed to increase the number of such stations.

A time signal has been placed in operation on the citadel at Halifax, the ball being dropped by an electric circuit from the observatory at St. John. Mr. Hutchinson deserves much credit for the able manner in which he has arranged for apparatus for this time service which is, I believe, greatly appreciated by the shipping people.

INSPECTION OF STATIONS.

During the fiscal year ended June 30, 1905, meteorological stations were inspected as follows :—By the director, 13 stations, namely : St. John, Grand Manan, St. Andrew, Fredericton, Digby, Halifax, Sydney, St. Johns, N.F., North Sydney, Charlottetown, Tignish, Point du Chêne and Moncton.

By Mr. B. C. Webber, 24 stations :—Kamloops, New Westminster, Vancouver, Victoria, Glacier, Red Deer, Edmonton, Rockliffe, Bancroft, Port Credit, Kingston, Oak-

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ville, Port Dalhousie, St. Catharines, Port Colborne, Port Dover, Port Burwell, Port Stanley, Sarnia, Amherstburg, Cobourg, Port Hope, Deseronto and Prinyer. Barometers were cleaned and compared with a standard and other instruments were also adjusted and left in good order.

At Vancouver a new shed for the time signal gun was ordered and new electrical contacts for firing the gun installed. A more modern gun is required for the signal work. At Victoria the work of the provincial branch was found to be progressing satisfactorily.

At storm signal stations minor repairs to masts and signals were ordered and where favourable terms could be made, electric light night signals installed.

Eleven stations, Sault Ste. Marie, Parry Sound, Depot Harbour, Midland, Collingwood, Owen Sound, Chantry island, Saugeen, Goderich, Bayfield and Kincardine were visited by Mr. H. V. Payne. At Sault Ste. Marie it will be necessary to remove the signal mast from present site. At Parry Sound electric light night signals can be installed, the town will furnish the necessary power free of cost.

Mr. W. D. Allan visited Winnipeg, Carman, Portage La Prairie, Brandon, Moosomin, Indian Head, Regina, Prince Albert, Calgary, Lethbridge, Edmonton, Sault Ste. Marie, White River, Port Arthur, Fort William, Winnipeg, Dauphin, Swan River, Minnedosa, Qu'Appelle, Battleford, Prince Albert and Chaplin and reports that the new special daily weather bulletin published in Manitoba and the North-west Territories has proved most satisfactory and that the grain merchants take an especial interest in it.

At Sault Ste. Marie the new wharf had not been completed, so no change in position of signal mast could yet be made. Fort William new signals mast was under way and electric light night signals are to be installed. Barometers were cleared and adjusted where necessary.

The opening up of so much new country in the North-west by the various railroads will necessitate a large expansion of the work and possibly the opening of a more important station at Winnipeg.

TIME SERVICE.

During the year ending June 30, 1905, 64 observations for time were made in the meridian with the transit instrument; of these 57 were stellar and 5 solar observations. The position of the stars used were as usual those given in the *Berliner Jahrbuch*. The collimation error of the transit instrument has varied very little during the year, and has frequently been determined from micrometrical measurements on the collimating telescope and by reversal on stars. The azimuth and level errors have also remained very steady, their variation being exceedingly small. The mounting of the transit instrument still remains in a very satisfactory condition, its stability being such that no readjustment of the instrument to the meridian has been found necessary since its installation some twenty years ago.

The time exchanges with Montreal, Quebec and St. John have been carried on as usual and registered on the chronograph at Toronto. The errors of the Toronto clock and of the time pieces used by the different observers elsewhere are computed from the latest observations. Both the sidereal and mean time clocks of the Toronto Observatory with their various electrical appliances have continued to work well and give great satisfaction.

On September 8, 1904, during the meeting of the Geographical Congress, time was received from Washington at midnight, the two clocks differing only 5-hundredths of a second.

The Washington World signals were also received at Toronto on May 3, 1905, at midnight, the two times being in exact coincidence.

The following table shows the difference between the time by 'Standard Observer' and that given at the various exchanges. The sign + indicates that the time sent

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from the different observatories is faster than that by ‘Standard Observer.’ The time by ‘Standard Observer’ is the arithmetical mean of the times determined at Toronto and Montreal.

1904.	Toronto Sec- tions.	Montreal Sec- tions.	Quebec Sec- tions.	St. John Sec- tions.
July 8.....	—0·07	+0·07	—0·52	—0·08
" 29.....	—0·22	+0·22	—0·02	.....
August 12 ...	—0·22	+0·22	—0·22	—0·14
" 26.....	+0·30	—0·30	+0·47	—0·08
September 28.....	+0·31	—0·31	+0·26	.....
October 14.....	—0·01	+0·01	+0·27	—0·42
November 4.....	+0·10	—0·10	+1·34	—0·05
" 25.....	+0·02	—0·02	—0·57	—0·65
December 9.....	—0·32	+0·32	+0·07	—1·29
" 23.....	—0·51	+0·51	—0·26	—1·06
1905.				
January 20.....	—0·02	+0·02	+0·11	—0·53
February 10.....	—0·16	+0·16	+0·55	—0·61
" 24.....	+0·07	—0·07	+1·34	—0·35
March 10.....	—0·01	+0·01	+2·07	—0·23
" 24.....	—0·17	+0·17	—0·23	+0·07
April 14.....	—0·10	+0·10	—0·04	—0·64
" 28.....	+0·04	—0·04	+1·09	—0·55
May 12.....	+0·09	—0·09	+0·26	.....
June 9.....	+0·13	—0·13	—1·04	—0·05
" 30.....	—0·14	+0·14	—0·48	+0·03

With equatorial telescope the sun spots observations have been continued, maps of the sun’s surface four inches in diameter being obtained on 116 days On these maps the position of the sun’s axis and equator are drawn, as well as the vertical lines through the north, south, east and west points. The sun was not observed to be free of spots on any of the days of observation. No observations of the sun were taken between November 3, 1904, and January 13, 1905. For the period, February 8 to 17, a maximum of sun spots appeared on the sun’s surface, the equatorial regions having quite a number of small spots intermingled with moderately large ones.

PHOTOGRAPHY.

The magnetic instruments which were formerly at Toronto were, in 1898, removed to a small new observatory at the village of Agincourt, Ont., nine miles from Toronto—this change having been made on account of the electric train disturbance. The photographic paper on which are registered the records of the Magnetic Observatory are, however, all developed in the central office together with the records of the seismometer, barograph and thermograph, and this work occupies the whole time of one man who has frequently to receive other assistance in order that his work may not fall behind.

STATION EQUIPMENT.

Thermometer shelters and fittings, also supports and attachments for wind guages, &c., are manufactured in this office. Storm signals are manufactured in Toronto and shipped from this office, and all instruments are here packed and distributed to the various parts of the Dominion.

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SEISMOLOGICAL OBSERVATIONS.

The Milne Seismographs at Toronto and Victoria, B.C., continued to give very satisfactory results throughout the year. Tabular measurements of all earthquake disturbances at both stations together with photographic copies of important ones are made, giving the times of preliminary tremors, large waves, maximum and amplitude movements. These are forwarded twice a year to Professor Milne, Chairman of the Seismographical Committee of the Royal Society, London; Dr. Reid, Johns Hopkins University, Department of the Interior, Baltimore, Md., and lately a monthly statement to Professor Cleveland Abbe, Weather Bureau, Washington, D.C. Many other scientific bodies throughout the world occasionally request copies of seismograms, these affording important data for the investigations regarding the laws which regulate those world shaking earthquakes and which destroy so many lives and property.

The Canadian observations are considered by those institutions of great importance and very essential for this work. Professor Milne has some 40 instruments in operation at different portions of the world, the majority being maintained by the respective governments, and at the yearly meeting of the British Association he reports on the work which has been done at all stations.

During the year, 66 earth tremors were recorded at Victoria, and 59 at Toronto. The largest occurred on August 27, December 20, 1904, and April 4, 1905. During the disturbance of August 27 the booms at both stations swung over an amplitude 18 millimetres. In fact this was one of the largest disturbances recorded since the instruments were installed—the booms swinging off the field of view on two separate occasions.

This earthquake may possibly have been of submarine origin in the vicinity of South Pacific, as some days afterwards there were waves reported 40 feet high rolling ceaselessly against the shores of Southern California causing much damage. The earthquake of December 20 occurred in Panama—the boom at Toronto swinging 11 millimetres and 3 at Victoria. The disastrous Indian earthquake of April 4 began simultaneously at both stations, viz., 1h. 14m. Greenwich mean time. The duration was also about stations, viz., 3h. 26m. The amplitude of the swing at Victoria was 6.3 millimetres against 4.0 at Toronto. Press despatches show that in one city alone 400 persons were killed and residences and temples leveled. Reports from various points indicate that the earthquake caused widespread disaster.

THE UNITED STATES WEATHER BUREAU.

In conclusion I desire to place on record my entire appreciation of the very friendly and harmonious relations existing between the Canadian Meteorological Service and the United States Weather Bureau. The exchange of reports continues as heretofore and all communications are characterized by the utmost goodwill and a most evident desire for mutual co-operation.

All of which is respectfully submitted,

R. F. STUPART,
Director.

APPENDIX 'A.'

QUEBEC, August 8, 1905.

To the Director,
Meteorological Service,
Toronto.

SIR,—I have the honour to transmit my annual report for the fiscal year 1904-05.

All the usual meteorological observations have been taken as formerly, and the correct time given daily.

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The two clocks of the observatory have not been cleaned since 1899. They now require to be examined and cleaned by a competent person. I have often noticed, especially after storms, a great change in their rates caused by the vibrations of the building, the clocks not being placed on a proper foundation.

Considering that I cannot rely on their rate, when the weather does not permit an observation, I think it very important that these clocks should be put in perfect order.

The time ball on the citadel has been dropped in a very satisfactory manner during the navigation season. While making my last inspection, I found that some repairs were necessary. The mast is somewhat rotten, the ball requires a new covering and the roof made water-proof to prevent the electric apparatus from being damaged.

Such repairs ought to be made so that all may be in perfect order at the opening of navigation next year.

I have the honour to be, sir,

Your obedient servant,

ARTHUR SMITH.

APPENDIX 'B.'

METEOROLOGICAL SERVICE, ST. JOHN OBSERVATORY,
ST. JOHN, N.B., October, 1905.

R. F. STUPART, F.R.S.C.,
Director, Meteorological Service,
Toronto, Ont.

SIR,—I have the honour to present my annual report of the St. John observatory for the fiscal year ending June 30, 1905.

The meteorological work has been carried on without change from my previous report. The recording as well as eye-reading instruments are all in excellent condition. A new anemometer was installed owing to our old instrument becoming worn and unserviceable.

The morning weather forecasts and all storm warning messages are repeated to St. Martins by telephone and storm signals are displayed there for information of mariners in that section of the Bay of Fundy.

Numerous personal and telephone calls are made for information from the meteorological records, and at times evidence has been required by the courts. In many of these cases records from the recording wind and rain gauges have been invaluable.

Copies of the morning weather bulletin received by wire each week day from Toronto have been distributed through the mails, posted in prominent places and published by the daily papers. Owing to the reliable forecasts, movements of storms and general weather conditions contained in the bulletin, it is greatly valued by mariners, shippers and many other interests affected by weather changes.

Observations of standard stars have been made nearly every clear night with the meridian telescope, for the determination of errors and rates of the sidereal clocks. The observations as well as the daily clock comparisons have been registered on the chronograph. Time signals for the two minutes ending at 10 a.m. (60th meridian time) from the mean time transmitting clock have been telegraphed to all points in the maritime provinces connected by the Western Union Telegraph Company. Special signals have been sent at other hours on request to officers of the British and foreign fleets, cable ships and merchant vessels, also locally transmitted by telephone to chronometer and watchmakers. By the co-operation of the Superintendent of the Western Union Telegraph Company, a special signal was transmitted at 6 p.m. on December 31, to all offices connected with that company especially for the regulation of public clocks.

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The time ball at St. John for the use of shipping and others has been dropped as heretofore at 1 p.m., 60th meridian time.

The clock in post office lobby has been hourly corrected day and night throughout the year, this clock being connected by wire with one of our mean time clocks. No failures of correction have been made and it is most useful to the public for correcting time-pieces.

HALIFAX TIME BALL.

After some unavoidable delay the Halifax time ball was started in operation on October 1, 1904. The ball is on a staff with base and small house for protection of hoisting gear and electric release is situated on the citadel a little north of the main signal station. At first, some little trouble was experienced, principally by repeated breaks in the hoisting chain, but since this difficulty has been overcome it has worked smoothly and without failure except for a short period in January, when, owing to a heavy sleet storm which caused much wire trouble in Halifax, the release magnets were burned out. A clock especially designed for this service was placed in the Western Union Office at Halifax. This clock has a good movement and a mercury pendulum, is wound electrically and is daily corrected or synchronized by the final dot at 10 a.m. of the time signal sent by our transmitting clock. It is connected by wire with the ball on citadel and is automatically and electrically dropped at the instant of 1 p.m., the times of hoisting half elevation, full elevation and drop being synchronous with the ball at St. John. Another feature of the master clock in Halifax is that it sends a signal to the citadel every hour day and night, and corrects a subsidiary clock placed there by the Meteorological Service for the guidance of the hoisting man. The hoisting and care of apparatus at the citadel are under control of the Royal engineers and the electric clock in Halifax is in charge of Mr. C. W. McKee, manager of the Western Union there. To keep a check on the time of the Halifax clock it is fitted with a break circuit attachment and return signals are received at St. John and registered on the chronograph with one of our standard clocks. So far but little error has been found between the time of synchronizing and return signal at a late hour in afternoon or during evening. This system, which I am not aware has been operated elsewhere, works most satisfactorily. No failures to synchronize the Halifax clock occurred. On a few occasions when wire trouble existed signals were repeated at 11 or 12 o'clock and on two days the Halifax ball was dropped direct from St. John, the same signal which synchronized their clock dropping the ball.

Sidereal clock, No. 94, by Dr. S. Riefler, Munich, was received on December 24, 1904, and temporarily mounted in one of the office rooms. It is intended to construct a place for this clock in the basement where it will be set up under much more favourable conditions. This clock is inclosed in a glass cylinder which can be made air-tight and kept at constant pressure. A mercurial barometer is inclosed in the case. The clock has the Riefler free escapement and nickel steel pendulum. On its temporary mounting and without the case being sealed and air partially exhausted it has shown a remarkably steady rate.

I have the honour to be, sir,
Your obedient servant,

D. L. HUTCHINSON,
Director, St. John Observatory.

SESSIONAL PAPER No. 21

MAGNETIC OBSERVATORY.

Lt.-Colonel F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have to report that during the fiscal year ended June 30, 1905, there has been no change in the equipment of the observatory.

The photographic curves showing the daily changes of declination and horizontal force and also the temperature of the basement, have been maintained throughout the year without any loss of record. The ordinates of these curves have been measured at hourly intervals and at the occurrence of maximum and minimum. These results have been tabulated in the usual way and the hourly and daily means have been computed for each month and reduced to absolute values. The angular value of the ordinate of the bifilar has been redetermined and found to agree with former determinations.

Absolute determination of declination, horizontal force and inclination have been regularly taken and compared with results of the different instruments photographically and by auxiliary scales attached.

The accuracy of time markings on curves has been assured by daily comparison with the chronometer and weekly exchanges with Toronto.

Special data has been furnished on application, to directors of observatories and other inquirers in reference to magnetic phenomena.

During the latter part of the year considerable extra time was given to preparations for magnetic observations in connection with Labrador Eclipse expedition, and the whole magnetic outfit was prepared at the Meteorological Office, Toronto. The equipment consisted of photographically registering instruments for showing changes in declination and horizontal force, also self-recording instruments for registering barometer and temperature changes, all of which were either wholly or in part manufactured at the Meteorological Office, Toronto, under the supervision of Mr. Menzies. In addition to the self-recording instruments, others for the determination of absolute values were taken from the Agincourt observatory, packed up and sent to Labrador, and the results obtained appear to have been highly satisfactory.

The usual meteorological observations consisting of maximum, minimum and incidental temperatures, anemograph records of velocity and direction of wind, measurements of snow and rainfall and other meteorological phenomena, have been recorded.

In 1902 I adopted the plan of publishing the records and results of this observatory in the annual report of the Meteorological Service, in which they appear as Part VI.

Respectfully submitted.

R. F. STUPART,
Director.

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APPENDIX No. 10.

SIGNAL STATIONS.

QUEBEC, November 20, 1905.

Lt.-Col. F. GOURDEAU,
Deputy Minister Marine and Fisheries.
Ottawa.

SIR,—I have the honour to enclose herewith the annual report of the Signal Service for the year ending June 30, 1905.

I have the honour to be, sir,
Your obedient servant,

J. U. GREGORY,
Agent Department of Marine and Fisheries.

This important service has been attended to, as customary, by Mr. Henry W. McGreevy.

A telephonic communication was established between the new station at the north-east end of Belle Isle with the old station at the west end of Belle Isle, and has proved to be satisfactory in keeping the department posted as to the progress and requirements of the works.

The signal service and the establishment of the Marconi system at several points in the Gulf of St. Lawrence and Straits of Belle Isle, enables the department to communicate with important points, from which general information can be obtained when the Marconi system is in operation.

As in preceding seasons, reports have been received from the stations in the lower part of the river and gulf, recording the weather, wind, condition, location and movement of the ice during the winter and spring months, and during the season of navigation all inward and outward bound vessels as signalled when passing each station. From the close of navigation until the opening of navigation three reports were obtained per week and forwarded to the Boards of Trade of Montreal, St. John and Quebec, and to the Chamber of Commerce at Halifax, also to the press of Montreal and Quebec, to the agent of the department, Quebec, to the Custom House and Immigration agent, to the agents of steamship lines, tug owners, to the pilots for below and above Quebec, also to Messrs. Henry Fry & Co., Lloyds agents at Quebec.

From the beginning of April reports were received twice a day and forwarded as above.

The chief superintendent of the quarantine station at Grosse Isle is also supplied with full information as to weather, wind, and the incoming of all transatlantic or foreign vessels.

The quarantine doctor at Rimouski is also supplied with a report of the incoming mail steamers, name of station and hour of passing being given when vessel was first sighted.

Information was supplied from the bureau here as in past seasons, to the agents at Anticosti, Magdalen Islands, Meat Cove, C.B., Cape Ray, and Cape Race, Newfound-

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land, from the beginning of April, as to weather, wind, movement and condition of the ice in the gulf and river St. Lawrence up to Montreal, for the guidance of any vessel calling for information.

Information as to wind, weather, and ice in the vicinity of Anticosti, Magdalen Islands, Meat Cove, St. Paul's Island and Cape Ray, Newfoundland, is also sent to Point aux Esquimaux in March for the guidance of the sealing fleet.

All inward bound vessels showing their official numbers will be reported from Marine signal stations in the river and gulf of St. Lawrence immediately, and all reports promptly posted on the bulletin boards of the Great North-western Telegraphic Company's offices in Quebec and Montreal.

Blue lights were supplied the signal officers at Belle Isle and Point Amour to indicate to any passing vessel sending up distinguishing rockets that their night signals were recognized and they would in consequence be reported.

I have the honour to be, sir,

Your obedient servant,

J. U. GREGORY,

*Agent Department of Marine and Fisheries and
Superintendent of Signal Service.*

SIGNAL SERVICE.

ST. JOHN.

The following vessels have been signalled during the year ending June 30, 1905:—

87 steamers.. . . .	190,046 tons.
4 ships.. . . .	5,648 "
17 barques.. . . .	11,586 "
1 four-masted barque.. . . .	2,203 "
11 barquentines.. . . .	5,692 "
2 brigantines.. . . .	
1 four-masted schooner.. . . .	644 "
1 four masted schooner.. . . .	600 "
62 three-masted schooners.. . . .	16,222 "
<hr/>	
186 Total number of vessels.. . . .	232,641 "

CITADEL SIGNAL

YEARLY Register of Shipping

YEAR OR MONTH.	BRITISH.			FOREIGN.			1ST CLASS			2ND CLASS STEAMERS.			SHIPS AND BARQUES.		
	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
1904.															
July.....	3	3	.....	.....	.....	.....	29	26	3	89	80	9	.....	.....	.....
August.....	.....	.....	.....	1	1	.....	29	25	4	88	78	10	.....	.....	.....
September.....	3	3	.....	.....	.....	.....	24	21	3	98	76	22	.....	.....	.....
October	4	4	.....	.....	.....	.....	23	23	.....	86	71	15	2	2	...
November.....	1	1	.....	.....	.....	.....	20	20	.....	76	66	10	.....	.....	.....
December. ....	.....	.....	.....	.....	.....	.....	35	25	.....	88	72	16	.....	.....	.....
1905.															
January.....	.....	.....	.....	.....	.....	.....	33	33	.....	40	34	6	2	2	...
February.....	.....	.....	.....	.....	.....	.....	28	28	.....	32	31	1	.....	.....	.....
March.....	.....	.....	.....	.....	.....	.....	41	41	.....	45	40	5	.....	.....	.....
April	1	1	...	1	1	.....	44	44	.....	51	48	3	1	1	...
May	2	2	.....	.....	.....	.....	33	33	.....	68	60	8	1	1	.....
June.....	25	25	68	65	3	1	1
Yearly total	14	14	2	2	364	354	10	829	721	108	7	7

HALIFAX, N.S., July 10, 1905.

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STATION.

as per Record Folios.

BARQUENTINES.			BRIGS.			BRIGANTINES.			SCHOONERS, 3 MASTED OR BEAR- ING PRIVATE SIGNALS.			MONTHLY TOTALS.		
Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
4	4	...	...	...	...	...	...	...	8	8	...	133	121	12
4	4	...	...	...	...	...	...	...	8	7	1	130	115	15
5	5	...	3	3	...	...	...	...	3	3	...	136	111	25
...	...	...	...	...	...	1	1	...	6	6	...	122	107	15
...	...	...	...	...	...	...	...	...	5	5	...	102	92	10
...	...	...	...	...	...	...	...	...	3	3	...	126	110	16
...	...	...	...	...	...	...	...	...	2	2	...	77	71	6
...	...	...	...	...	...	...	...	...	3	3	...	63	62	1
1	1	...	...	...	...	1	1	...	2	2	...	90	85	5
...	...	...	2	2	...	...	...	...	5	5	...	105	102	3
1	1	...	...	...	...	...	...	...	3	3	...	108	100	8
1	1	...	3	3	...	...	...	...	7	7	...	105	102	3
16	16	...	8	8	...	2	2	...	55	54	1	1,297	1,178	119

GEO. BUTLER, L'T. Q'M. R.E.
Superintendent of Signals, Halifax.

APPENDIX No. 11.

REPORT ON LIFE SAVING STATIONS.

HALIFAX, N.S., October 21, 1905.

To the
Deputy Minister,
Marine and Fisheries Department,
Ottawa.

SIR,—I have the honour herewith to report on the life saving stations of the maritime provinces. Sable island station excepted, that being under the inspection of Mr. C. A. Hutchins, superintendent of lighthouses in this province.

INSPECTION OF STATIONS.

With the exception of Mud island, a temporary and exceptional station, the stations on the subjoined list have carefully and minutely been inspected by me, some on several occasions, and it affords me great satisfaction to report that every one I visited is completely efficient and that discipline has been duly maintained.

The cockswains, the officers in charge, and the boatmen are in good hardy training, the regular bi-monthly drills afloat have been frequently conducted in stormy months, and I find existing among officers and men a very laudable and practical desire to render the respective stations, effective, reliable, and a credit to the department.

SERVICES AT WRECKS.

No wrecks requiring the services of the lifeboats and stations under my inspection have taken place during the current year.

DEVIL'S ISLAND STATION.

Mr. G. E. DeYoung, the very efficient cockswain of this station, resigned in May last. Mr. Benjamin H. Hennebery has been appointed to succeed him.

DUNCAN'S COVE STATION.

New launching ways consisting of iron rails and substantial iron work, are now being completed at this station.

The station was visited by me on October 13, 1905.

On the work being completed I will furnish a photograph of the new ways, and if possible transmit it in time to be attached to this report.

BLANCHE STATION.

Extensive but very necessary repairs and improvements are now being made in the launching ways at this station, the work is near completion and will be inspected by me.

PICTOU ISLAND STATION.

Repairs have been effected at this station and inspected by me.

Owing to the loose sandy nature of the beach, and its liability to shifting according to the season, I found it impracticable to adopt the railway rail style of ways at this station. Timber had to be used.

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ST. PAUL'S ISLAND STATION.

As previously reported to the agent for the department in Nova Scotia, a lifeboat more distinct and separate from the original boat-house and slip used for the surf and other boats belonging to the station is much needed.

On my recent visit to St. Paul's on September 1, 1905, the superintendent, Mr. John M. Campbell, brought under my notice and consideration the necessity which exists for the lifeboat house above referred to, a store for the cart and gear for the Lyle gun apparatus, and for means of hauling up during the winter season the small sailing tender *Douglas* used for communication when necessary with the mainland.

I directed Mr. Campbell to send me a plan to scale, and description of what is needed; he has done so, but the particulars and specification he has given me are not complete.

I have written to Mr. Campbell to send me a plan, and elevation on scale, amount of material required and an estimate of the cost of the work completed.

On receipt of this information I will report fully on the subject to the agent, Mr. Parsons, who will communicate with the department.

LIFE SAVING STATIONS, BAY OF FUNDY, N.B.

1. *Seal Cove, Grand Manan*.—Established 1898. F. Benson, cockswain. No. of crew, 7—cockswain and 6 boatmen. Pay of cockswain, \$75 per annum. Pay of crew, \$2 each drill of 5 hours during the months from May to November inclusive. Extra pay or rewards when employed at wrecks or saving life. Description of boat: Beebe-McClellan. Surf boat. Self-bailing. 25 feet long. Full regulation requirement. Boat built at Shelburne, N.S. Iron launching ways laid in 1900.

LIFE BOAT STATIONS, ATLANTIC COAST, N.S.

2. *Yarmouth*.—Established 1886. A. Cain, cockswain. No. of crew, cockswain and 6 boatmen. Pay of coxswain, \$75 per annum. Pay of crew, \$2 each drill of 5 hours during the months from May to November inclusive. Extra pay or rewards when employed at wrecks saving life. Description of boat: Dobbin's pattern, self-righting and self-bailing, 25 feet long, cost \$575. Built at Dartmouth, Nova Scotia. Full regulation equipment.

3. *Mud Island Station*.—I. Pitman, cockswain. Salary, \$80 per annum. The boats used are dories and fishing boats. This station is kept by fishermen on the island. Contract, \$80 per annum.

4. *Seal Island station*.—Established 1880. Cockswain, H. Hitchins. Salary, \$250 per annum. Members of crew, 7—cockswain and 6 boatmen. Pay of boatmen, \$100 per annum each. Description of boats: Beebe-McClellan, cost \$240 each. One built at Halifax, one built at Shelburne, N.S. Boats on east and west sides of island. Regulation equipment complete.

5. *Clark's harbour station*.—Established 1900. Thomas N. Nickerson, cockswain. Salary \$75 per annum. Crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours each during the months from May to November inclusive. Extra pay when at wrecks saving life. Description of boat: Beebe-McClellan, self-bailing, cost \$250. Built at Shelburne, N.S. Full regulation equipment.

6. *Blanche station*.—Established 1889. Cockswain, W. A. Smith. Salary, \$75 per annum. No. of crew, 7—cockswain, 6 boatmen. Pay of crew, \$2 per drill of 5 hours

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each during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Beebe-McClellan, self-bailing surf boat 25 feet long, cost \$250. Full regulation equipment.

7. *Port Mouton station*.—Established 1889. Cockswain, Walter Cook. Salary, \$75 per annum. No. of crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours each, during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Dobbin's pattern, self-righting and self-bailing, 25 feet long, cost \$575. Built at Dartmouth, N.S. Full regulation equipment.

8. *Duncan's Cove station*.—Established 1886. Cockswain, J. W. Holland. Salary, \$75 per annum. No. of crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Beebe-McClellan, self-bailing surf boat, 25 feet long. Built in Shelburne, N.S.—cost \$250. Lyle gun and complete apparatus. Regulation equipment complete.

9. *Herring Cove station*.—Established 1885. Cockswain, J. Gorman. Salary, \$75 per annum. No. of crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours each during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Beebe-McClellan, self-bailing surf boat, 25 feet long, cost \$250. Built at Shelburne, N.S. Regulation equipment complete.

10. *Devil's Island station*.—Established 1885. Cockswain, Benjamin H. Hennebery. Salary, \$75 per annum. No. of crew, cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours each during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Beebe-McClellan, self-bailing surf boat, 25 feet long, cost \$250. Built at Shelburne, N.S. Regulation equipments complete.

11. *Whitehead station*.—Established 1890. Cockswain, H. P. Munroe. Salary, \$75 per annum. Pay of crew, \$2 per drill of 5 hours each during the months from May to November inclusive. Extra pay and rewards when at wrecks saving life. Description of boat: Dobbins pattern, self-righting, self-bailing, 25 feet long, cost \$575. Built at Dartmouth, N.S. Full regulation equipment.

12. *Scattarie station*.—Established 1885. F. Martell, cockswain. Salary, \$75 per annum. No. of crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5 hours each during the months from May to November inclusive. Description of boat: Beebe-McClellan, self-bailing surf boat, 25 feet long, cost \$250. Built at Shelburne, N.S. Full regulation equipments.

13. *St. Paul's Island station*.—Established 1885. John M. Campbell, superintendent of Humane Establishment, cockswain. No. of boatmen, 3. \$300 per annum each. Description of boat: Beebe-McClellan, self-bailing surf boat, 25 feet long, cost \$250. Built at Shelburne, N.S. Full regulation equipment. Lyle gun carriage apparatus complete.

14. *Pictou Island*.—Established 1889. Cockswain, Alex. Currie. Salary, \$75 per annum. No. of crew, 7—cockswain and 6 boatmen. Pay of crew, \$2 per drill of 5

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hours each during the months from May to November inclusive. Extra pay and rewards when at wrecks and saving life. Description of boat : Dobbin's pattern, self-regulating and self-bailing, cost \$575. Built in Dartmouth. Full regulation equipment.

I have the honour to remain, sir,

Your most obedient servant,

BLOOMFIELD DOUGLAS, R.N.R.,

Naval Assistant.

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LIFE Saving Stations maintained

Number.	Stations.	Established.	Coxswain.	Crew.	Coxswain's Salary. Per annum.	Pay of Crew.
<i>Bay of Fundy—</i>						
1	Seal Cove...	1898	F. Benson.....	7	75	\$2.00 per drill, and extra when engaged saving life.
2	Yarmouth.....	1886	A. Cain	7	75	" "
3	Mud Island.....	1887	I. Pitman		80	.....
4	Seal Island	1880	H. Hitchens....	7	250	\$100 each of crew per annum..
<i>Atlantic Coast—</i>						
5	Clark's Harbour	1900	Thomas N. Nickerson.	7	75	\$2.00 per drill, and extra when saving life.
6	Blanche.....	1889	W. A. B. Smith.	7	75	" "
7	Port Mouton.	1889	Walter Cook....	7	75	" "
8	Duncan's Cove.....	1886	J. W. Holland..	7	75	" "
9	Herring Cove	1885	J. Gorinan.....	7	75	" "
10	Halifax.....	1900	.....			No crew here.....
11	Devil's Island.....	1885	Benj. H. Henneberry.	7	75	\$2.00 per drill, and extra when saving life.
12	White Head	1890	H. P. Munroe..	6	75	" "
13	Sable Island.....	1885	{ G. Soderberg.. J. Ritcey.....	.....	250 225	Paid as island staff.....
14	Scatterie Island ...	1885	F. Martell.....	7	75	\$2.00 per drill, and extra when saving life.
<i>Gulf of St. Lawrence—</i>						
15	St. Paul's Island.....	1885	Supt. Humane Establishment.	3		\$300 each per annum..
16	Pictou Island.	1889	Alex. Currie....	7	75	\$2.00 per drill, and extra when saving life.
17	Cape Tormentine.	1893	No organized crew.			.....
<i>Great Lakes—</i>						
18	Wellington.....	1883	"			\$2.00 per drill, and extra when saving life.
19	Consecon ...	1898	W. A. Young...	7	75	" "
20	Cobourg.....	1882	D. Rooney.....	7	75	" "
21	Port Hope.....	1889	W. T. Clarke...	7	75	" "
22	Toronto Island.....	1883	Wm. Ward.....	7	75	" "
23	Long Point.....	1902	Geo. Wisner ...	7	†75 & 40	\$2.00 per drill, and \$40 per month for three months.
24	Port Stanley..	1885	Wm. Berry. ...	7	75	\$2.00 per drill, and extra when saving life.
25	Point Pelee.....	1900	W. A. Grubb,jr.	7	75	" "
26	Goderich.	1886	J. R. Craigie ...	7	75	" "
27	Collingwood.....	1885	P. Doherty.	7	75	" "
28	Kincardine.....	1903	Thos. McGaw...	7	75	" "

* Crew at station permanently for three months during autumn. †\$75 and \$40 per month for three

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by the Dominion Government.

Description of Boat.	Cost.	Where Built.	Equipment.	Remarks.
	\$			
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Shelburne, N.S.	Full regulation	Iron rails laid in 1900.
Dobbin's pattern, self-bailing and self-righting, 25 feet long.	575	Dartmouth, N.S.	"	
Fishing-boats and dories.	80 pr.an.	.....	Ordinary.....	Kept by contract with fishermen.
Beebe-McLellan boat on east side..	240	Shelburne and Halifax, N.S.	Full regulation	New boat, 1903.
Beebe-McLellan, self-bailing, 25 feet long, low ends.	250	"	"	Boat house and gear cost \$700.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Dartmouth, N.S.	"	New boat in 1901.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	"	"	
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Shelburne, N.S.	"	Lyle gun established here in 1900; new boat, 1903.
"	250	"	"	
"	375	"	Ordinary.....	This is a spare boat which can be used with volunteer crew when required.
"	250	"	Full regulation	
Dobbin's pattern, " ..	575	Dartmouth, N.S.	"	Lyle gun.
Two Dobbin's self-righting and bailing boats and one Beebe-McLellan surf-boat, self-bailing.	1,100	Halifax, N. S...	"	Lyle gun and rocket apparatus kept here. Coxswains are under the control of Superintendent of Humane Establishment.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Shelburne, N.S.	"	New boat, 1903.
Beebe-McLellan self-bailing, 25 feet long, low ends.	250	"	Full equipment.	Lyle gun added in 1900.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	Dartmouth, N.S.	"	
Boats of winter mail service .....	.....	.....	Ordinary.....	
Dobbin's pattern, self-righting and bailing.	750	Buffalo, N.Y....	Full equipment.	Removed from Poplar Point in 1900.
"	750	"	"	Removed from Wellington in 1893.
"	575	Goderich, Ont ..	"	
"	620	"	"	
"	600	"	"	New boat, 1895.
Surf-boat.....	330	Collingwood ..	"	New station and new boat, 1902.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	350	"	"	
Surf-boat.....	330	"	"	Boat house removed from Point up 200 yards and tramway built.
"	330	"	"	New boat, 1902.
Beebe-McLellan self-bailing surf-boat.	375	"	"	New boat in 1896.
"	350	"	"	New boat, 1903.

months while permanently at station.
21--10

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APPENDIX No. 12.

REPORT OF CHIEF EXAMINER MASTERS AND MATES.

OTTAWA, November 3, 1905.

Col. F. GOURDEAU,
Deputy Minister Marine and Fisheries,
Ottawa, Ont.

SIR,—I have the honour to submit a report of duties performed in the work under my supervision for the year 1905.

My appointment as Chief Examiner dates December 21, and in order to creditably conduct this branch of your department on a proper basis, it was necessary, first, to become acquainted with the system followed by the Board of Trade. I was, therefore, instructed to proceed to London and report myself to the Secretary of the Board of Trade.

I left Ottawa on January 5 last and arrived in London on the 18th, and on the 20th, began to follow a series of examinations which are weekly conducted by four examiners, at the Marine Board, Dock street, London.

After seeing the system followed by each examiner, I proceeded to Glasgow and Greenwich, where examinations are conducted by one examiner, a system more in accordance with the conditions prevailing in Canada; I then returned to London, and for a week, received practical instructions from the chief examiner.

I sailed for Canada on March 10, and reached Ottawa on the 18th, and from that time till the end of the fiscal year, I have been busy setting new problems.

L. A. DEMERS,
Chief Examiner.

November 10, 1905.

SIR,—I have the honour to submit to you the annual report for the fiscal year 1905 upon the establishments of marine school under my control.

Four schools of instruction have been opened to the seafaring community, located as follows:—

Victoria, B.C., instructor, Capt. J. Gaudin.
Halifax, N.S., instructor, Comm. E. B. Finling, R.N.
Yarmouth, N.S., instructor, Capt. J. Murphy.
St. John, N.B., instructor, Capt. R. Cole.

The course, which constitutes 32 lectures, is free to all who wish to attend; two lectures were given weekly, during the winter months, beginning in December. Subjects most interesting and important relating to navigation and seamanship were discussed and demonstrated.

A guide has been issued as help to the instructors in order that the teaching be uniform, but as each locality has its special class of students, some more advanced than others, it was necessary to permit instructors to slightly deviate from the programme traced.

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Steps are being taken to open other schools for the coming season, which will likely be located at Montreal, Charlottetown, North Sydney, Kingston and Lunenburg. All schools will be provided with all instruments and models necessary for demonstration.

The laws of magnetism relating to ship's compass, and the rule of the road in all its various phases, will be thoroughly explained, in fact every effort is being made to render those lectures interesting and attractive. As the standard of knowledge for local certificates is being raised, the department may expect in future a larger attendance and more satisfactory results.

The following is a statement of attendance at each school:—

Name of Instructors.	Ports.		Average.	Maximum.	Total.	Number of Lectures.
Capt. J. Gaudin	Victoria	3	6.6	12	198	30
Capt. R. Cole	St. John	2	2.4	6	62	26
Capt. J. Murphy	Yarmouth	1	7.4	15	237	34
Com. E. B. Tinling	Halifax	3	5.06	12	172	36

I have the honour to be, sir,
Your obedient servant,

L. A. DEMERS,
Chief Examiner.

APPENDIX No. 13.

REPORT OF THE CHAIRMAN OF THE BOARD OF STEAMBOAT INSPECTION.

CHAIRMAN'S OFFICE,
OTTAWA, November, 1905.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the annual report of the working of the Steamboat Inspection Service for the fiscal year ending June 30, 1905.

It defines the general work of the service during the time stated, giving the names and number of steamboats inspected in the several divisions, with the amount of dues collected as known by the inspectors on account of inspection, which dues are now only collected from steamers registered elsewhere than in Canada, and employed in the carriage of passengers from one port or place in Canada to another port or place in Canada, Canadian registered steamers having been exempted from same by the Act passed August, 1903; and United States registered steamers being exempted by the order in council of February, 1905, owing to the reciprocal arrangements between the two countries in regard to the fees heretofore charged and the acknowledgment of certificates of inspection.

The fees received for engineer examinations with the names of the candidates and the grade of certificates issued to same is also given, together with a statement of the board meetings held, the penalties enforced for violations of the Steamboat Inspection Act, and the casualties occurring as reported from the several divisions.

In addition to the steamboats inspected at the port of Montreal, the ship's tackle and hoisting gear used for the purpose of loading and unloading those vessels to the number of 387, were also inspected by the steamboat inspectors of that port.

In my previous report reference was made to the locating of an office at Collingwood, Ont., which I beg to inform you has been established at that port since January 1, 1905, by Inspector E. W. McKean, formerly of Toronto, who takes charge of that division, Collingwood being his head-quarters; and which I find is favourably approved of by the public therein interested.

By an amendment to the Steamboat Inspection Act, passed July, 1904, regarding the inspection of boats propelled by gas, fluid, naphtha or similar power, rules have been formulated and adopted whereby such vessels may now be licensed as passenger boats, which has overcome the difficulties as heretofore existing, and whereby the public safety may be secured as far as possible under the conditions. Also the revised rules for the inspectors of steamboats and for the examination of engineers of steamboats came into force on the 1st day of January, 1905; and the rules of the road for preventing collisions on the Great Lakes were revised and brought into uniformity with the rules of the United States for the navigation of same waters, which rules came into force on the 1st day of April, 1905.

SESSIONAL PAPER No. 21

Number of steam vessels reported as known by the inspectors of steamboats in the Dominion, and their gross tonnage for the year ended June, 1905; also the number of vessels inspected but not registered in the Dominion for same date.

Division.	Number of Dominion registered steamers.	Gross tonnage of Dominion registered steamers.	Number of steamers inspected but not registered in the Dominion	Gross tonnage of steamers inspected but not registered in the Dominion.
Toronto	292	66,893.00	33	29,798.00
Collingwood	187	46,106.00	17	22,384.00
Kingston	171	24,424.40	12	1,126.52
Montreal	216	20,634.00	7	16,291.00
Sorel	93	26,607.69	2	1,853.08
Quebec	94	15,867.00	3	2,082.00
Nova Scotia	141	23,522.94	23	46,568.09
New Brunswick and P. E. Island	138	16,962.42	9	10,203.46
British Columbia and Yukon Territory	265	49,928.29	22	30,088.19
Manitoba and North-west Territories	158	10,381.07	1	331.00
	1,756	301,326.81	129	160,725.34

Number of Dominion registered steam vessels inspected and their gross tonnage, with the amount of fees collected on account of steamboat inspection, during the year ended June 30, 1905.

Division.	Number of Dominion registered steamers inspected.	Gross tonnage of Dominion registered steamers inspected.	Amount of fees collected on account of steamboat inspection.
			\$ cts.
Toronto	259	65,003.00	920 08
Collingwood	162	45,806.00	109 20
Kingston	163	25 073.48	19 12
Montreal	209	21,043.00	155 68
Sorel	84	26,069.69	
Quebec	89	13,527.00	138 16
Nova Scotia	124	22,727.71	1,834 24
New Brunswick and Prince Edward Island	129	16,896.34	212 80
British Columbia and Yukon Territory	248	48,801.14	1,559 04
Manitoba and North-west Territories	117	8,230.72	26 48
Engineers' certificates			1,237 50
Total	1,584	293,178.08	6,212 30

BOARD MEETINGS.

January 24, 1905.—A meeting of a quorum of the Board of Boiler and Machinery inspectors was convened at St. John, N.B., composed of Jos. Samson, Quebec, C. E. Dalton, St. John, and E. Adams, Chairman, for the purpose of examining candidates for the position of inspector for government steamers, rendered vacant by the demise of the late D. Stevens, who formerly filled the position, the result of which Mr. C. T. Schmidt, of Halifax, was appointed.

5-6 EDWARD VII., A. 1906

PROSECUTIONS WITH PENALTIES ENFORCED FOR VIOLATION OF THE STEAMBOAT INSPECTION ACT.

July 30, 1904.—The Collector of Customs at Rat Portage, Ont., had the owner of the steam tug *Sport* brought before the police magistrate on a charge of carrying passengers on said tug boat, she not being certificated for that purpose; the case was disposed of on August 22, when the owner was fined \$100, for which a bank draft was received by the department on September 16, 1904.

August 27, 1904.—A complaint was made to the department that the steamer *Lady of the Lake*, licensed as a tug boat, was carrying passengers on the Muskoka waters in violation of the Steamboat Inspection law; the matter was referred to the Department of Justice to take the necessary steps to prosecute the proper parties for so doing, who were fined \$100 and costs, which was deposited to the credit of the Receiver General by the department's agent.

May 18, 1905.—A draft was received by the department for \$50 forwarded by the Collector of Customs at St. John, N.B., being the amount of a fine imposed on the steam tug *Goliah*, of Halifax, N.S., for an infraction of the Steamboat Inspection Act, under section 17, sub-section 3, for making a voyage without being inspected and not having a certificate of inspection.

June 5, 1905.—At Rat Portage, Ont., the Collector of Customs prosecuted the owner of the tug *Wanderer* for violation of the Steamboat Act by carrying passengers on May 24 without being certificated for that purpose; the case came before the police magistrate, when the owner pleaded guilty and was sentenced to pay a fine of \$100, which amount was received by the department, June 30, 1905.

CASUALTIES.

The following are the casualties reported from the several districts as having occurred during the fiscal year ending June 30, 1905 :—

WEST ONTARIO DIVISION.

November 17, 1904.—While steamer *Ocean*, of St. Catharines, 684 gross tons, was on the dry dock at Port Dalhousie, she was totally destroyed by fire. Cause of fire is unknown.

April 6, 1905.—SS. *Lincoln*, of Toronto, 337 gross tons, was partially destroyed by fire while lying at the wharf at Sandwich. Cause of fire is unknown. She is being repaired again.

May 3, 1905.—The steamer *J. E. Mills*, of Sarnia, when on her way from Toledo, Ohio, to Amherstburg, Ont., sprang a leak and foundered. No fatalities. She has since been raised and placed in commission.

October 14, 1904.—The steamers *Midland Queen* and *Ottawa* collided off Caribou island, Lake Superior, during a dense fog. Considerable damage was done to both steamers, which proceeded on their way under their own steam, and have since been thoroughly repaired.

June 19, 1905.—The steamer *City of Collingwood* was burned while lying at her dock at Collingwood, the fire obtaining such headway before being discovered that three of the crew, who were asleep in the forecabin, could not escape and were burned to death, the rest of the crew escaping with difficulty.

SESSIONAL PAPER No. 21

EAST ONTARIO DIVISION.

Steamer *North Star*, of Peterborough, whilst lying at the dock at Gore's Landing at noon on October 9, 1904, caught on fire and became a total loss. No person on board at the time. Cause of fire unknown.

Steamer *Kenosha*, of Lindsay, was destroyed by fire at the dock on October 22, 1904, cause of fire unknown, no person being on board; the vessel being prepared at the time to lay up for the season.

Steamer *Alert*, of Peterborough, whilst lying at the dock at Lakefield, November 14, 1904, was destroyed by fire. Cause of fire unknown, the crew having left the vessel a short time previous. She has been rebuilt and converted into a tug boat.

MONTREAL DIVISION.

October 17, 1904.—Steamer *Argo*, while on her trip between Turtle Portage and Hunters Point on the North river took fire and became a total loss. Cause of fire unknown. No fatalities.

May 1, 1905.—Steamer *Dauntless*, while running for Oswego harbour stranded on Ford's shoal, and owing to a heavy sea running at the time, the cabin and part of the hull went to pieces. The boiler was afterwards taken out; the remainder lies in the shoal in about ten feet of water.

QUEBEC AND SOREL DIVISION.

On July 15, 1904, the paddle passenger steamer *Carolina* ran ashore in the Saguenay river about six miles from Ha Ha bay; was again floated on the 17th and brought to Quebec for repairs. No fatalities.

On September 9, 1904, the paddle passenger steamer *Virginia* ran ashore in the Saguenay river when nearing Chicoutimi; was floated on the 10th and brought to Quebec for repairs. No fatalities.

On October 4, 1904, the paddle passenger steamer *Admiral* caught on fire in Montreal harbour and became a total loss. Cause of fire is unknown. No fatalities.

On October 8, 1904, SS. *St. Lawrence*, of Quebec, 432 gross ton passenger steamer plying between Montreal and Sydney, C.B., ran ashore at English Point and became a total loss. No fatalities.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

July 18, 1904.—The ferry steamer *Maggie Miller*, of St. John, N.B., while on her regular run broke her paddle shaft in main journal, due to an old flaw developing; was replaced by a new one at St. John.

April 19, 1905.—The stern wheel steamer *Beatrice E. Waring*, of St. John, N.B., broke the holding down bolts or caps on main bearings, thereby breaking both eccentric straps and connecting rod on port side; the vessel was towed to St. John, where repairs were made.

May 3, 1905.—The screw steamer *Champlain*, of St. John, N.B., while on her regular route broke the high pressure piston, caused by follower bolt breaking; the vessel was towed to St. John, where a new piston was fitted.

NOVA SCOTIA DIVISION.

Casualty returns nil.

5-6 EDWARD VII., A. 1906

MANITOBA AND THE NORTH-WEST TERRITORIES.

Casualty returns nil.

BRITISH COLUMBIA AND YUKON TERRITORY.

SS. *Manauense*, of Victoria, B.C., 1372 tons gross, while on a voyage to River Amur, Siberia, July, 1904, stranded on the Siberian coast, and became a total loss.

SS. *Princess Victoria*, 1,943 gross tons, on voyage from Victoria, July 17, 1904, when rounding Prospect Point entrance to Vancouver harbour, struck the rocks ship's length to eastward of lighthouse, whereby the starboard tail shaft was bent and bracket twisted with four plates on starboard bilge fractured and two bent; was repaired and went into service again on July 27.

SS. *Barbara Boscowitz*, of Victoria, B.C., 338 tons gross, on a voyage to Naas river, October 2, 1904, in a dense fog stranded at Parsons bay, Harbledown Island, northern B.C. coast. Good order was maintained among the passengers until the Indians who were on board stampeded for the boats which had been lowered; in this rush one of them was upset, causing the death of three Indian children. The hull became a total loss; machinery and boiler saved.

SS. *Nell*, of Victoria, B.C., 208 tons gross, while loading lumber at Georgetown mill near Fort Simpson, B.C., on October 10, 1904, caught on fire and became a total loss.

SS. *Amur*, of Victoria, B.C., 907 tons gross, on a voyage to Skagway, Alaska, January 24, 1905, stranded on rocky shoal near south entrance of Wrangel Narrows: on return to Victoria was hauled out on marine ways, when the stern frame was found fractured and twelve plates and frames more or less damaged, which were repaired and vessel went into service March 15.

SS. *Iris*, of Vancouver, 58 tons gross, while going out of Vancouver harbour, November 25, 1904, her steering gear got carried away. The steamer became unmanageable, struck a shoal, capsized and was carried into deep water, becoming a total loss. All hands were saved in the life-boats.

SS. *Columbia*, of Vancouver, 252 tons gross, while on a voyage from Vancouver to Dixon entrance, struck a rock in Millbank Sound at midnight, January 1, 1905, no loss of life; all hands saved by the vessel's life-boats.

SS. *Comet*, of Vancouver, 85 tons gross, while on a voyage coastwise struck a submerged reef in Malspania Inlet at noon, May 21, 1905, and became a total wreck. No loss of life; all hands saved by the vessel's lifeboats.

I am, sir,

Your obedient servant,

E. ADAMS,

Chairman, Board of Steamboat Inspection.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

WEST ONTARIO, TORONTO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Myrtle	40	July 4..	9	Screw, pass., Crystal beach.
Thyra		Not issued.	34	Screw, yacht, Lake Ontario.
Caribou	378	July 15..	597	Screw, pass., Owen Sound and Fort William.
Lillie Smith		July 19..	275	Screw, freight, lakes and rivers.
Juno		July 19..	288	Screw, freight, lakes and rivers.
International		July 19..	851	Twin screw, car, ferry, Sarnia and Port Huron.
Winslow		Not issued.	351	Screw, tug, lakes and rivers.
Sarnia		July 20..	85	Screw, tug, lakes and rivers.
Salvor		Not issued.	126	Screw, tug, lakes and rivers.
Argyle		July 21..	41	Screw, tug, Sarnia and vicinity.
Ariadne		July 21..	38	Screw, fish tug, Sarnia and vicinity.
Tepiakan		July 21..	29	Screw, tug, Sarnia and vicinity.
Delila		Not issued.	4	Screw, yacht, Sarnia and vicinity.
Protector		Not issued.	181	Screw, tug, lakes and rivers.
D. McLeod		Aug. 16..	36	Screw, fish tug, lake Huron.
R. H. Dobson		Aug. 16..	44	Screw, fish tug, Lake Huron.
J. B. McLeod		Aug. 17..	25	Screw, fish tug, Lake Huron.
Frank G. McAulay ..		Aug. 17..	43	Screw, tug, Lake Huron.
John Logie		Aug. 17..	37	Screw, fish tug, Lake Huron.
Onward		Aug. 18..	22	Screw, fish, tug, Lake Huron.
Evelyn		Aug. 19..	32	Screw, fish, tug, Lake Huron.
Sea King		Aug. 19..	26	Screw, fish tug, Lake Huron.
A. M. Petrie		Not issued.	20	Screw, yacht, Lake Huron.
Huron		Aug. 20..	55	Screw, tug, Lake Huron.
Jno. R. Arnoldi		Not issued.	116	Dredge, Goderich harbour.
Haddington	10	Sept. 7..	1,603	Screw, pass., lakes and rivers.
Lansdowne	200	Sept. 15..	1,571	Paddle, pass., Windsor and Detroit.
Great Western	200	Sept. 15..	1,080	Paddle, pass., Windsor and Detroit.
Huron	245	Sept. 17..	1,052	Twin screw, pass., Windsor and Detroit.
Ranger	8	Sept. 17..	8	Screw, pass., Windsor and vicinity.
Tecumseh		Sept. 20..	840	Screw, freight, lakes and rivers.
City of New York ..		Not issued.	292	Screw, freight, lakes and rivers.
United Lumermen ..		Not issued.	398	Screw, freight, lakes and rivers.
J. M. Diver		Not issued.	48	Screw, tug, lakes and rivers.
Ottawa		Not issued.	617	Screw, tug, lakes and rivers.
R. C. Brittain		Oct. 24..	213	Screw, freight, Lake Ontario.
J. E. Mills		Not issued.	149	Screw, freight, Sarnia and vicinity.
Comfort	40	Oct. 26..	14	Screw, pass., Sombra and Marine city.
Willie Seagel		Oct. 26..	22	Screw, tug, Wallaceburg and vicinity.
Vick		Oct. 27..	13	Screw, tug, Chatham and vicinity.
Thomas		Not regis.		Paddle, freight, Chatham and vicinity.
D. W. Crow		Not issued.	27	Screw, tug, Chatham and vicinity.
Emma		Oct. 28..	6	Screw, tug, Chatham and vicinity.
Gordon Brown		Nov. 7..	33	Screw, fish tug, Lake Erie.
Uncle Tom		Nov. 8..	8	Screw, fish tug, Lake Erie.
Enterprise		Nov. 9..	18	Screw, fish tug, Lake Erie.
May B.		Nov. 9..	10	Screw, fish tug, Lake Erie.
Swan		Nov. 9..	14	Screw, fish tug, Lake Erie.
Star		Not issued.	13	Screw, fish tug, Lake Erie.
Zara		Nov. 9..	35	Screw, yacht, Long Point bay.
W. M. Gorman		Nov. 10..	28	Screw, fish tug, Lake Erie.
Belle		Nov. 10..	16	Screw, fish tug, Lake Erie.
Wm. Wilson		Nov. 11..	15	Screw, fish tug, Lake Erie.
City of Ladysmith ..		Nov. 11..	36	Screw, tug, fish Lake Erie.
Eleanor		Nov. 11..	26	Screw, fish tug, Lake Erie.
You & I		Nov. 11..	25	Screw, fish tug, Lake Erie.
Lena		Nov. 11..	14	Screw, fish tug, Lake Erie.
F. B. Bradey		Not issued.	29	Screw, fish tug, Lake Erie.
C. M. Bowman		Nov. 18..	88	Screw tug, lakes and rivers.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY —Continued.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Ontario	500	Mar. 22..	1,615	Paddle, pass., Windsor and Detroit.
Corona	1,456	Mar. 30..	1,274	Paddle, Lake Ontario.
International		Not issued.	851	Twin screw, Sarnia and Port Huron.
Iroquois		April 3..	2,359	Screw, freight, Duluth and Prescott.
Rosemount		April 5..	1,580	Screw, freight, Duluth and Quebec.
Lake Michigan		Not issued.	573	Screw, freight, lakes and rivers.
Turbinia	1,550	April 8..	1,064	Triple screw, pass., Hamilton and Toronto.
J. K. Secor		Not issued.	48	Screw, tug, Lake Erie.
Huronie	340	April 17..	3,330	Screw, pass., Duluth and Windsor.
Monarch	181	April 17..	2,017	Screw, pass., Duluth and Windsor.
City of New York		Not issued.	292	Screw, freight, lakes and rivers.
Isaac Lincoln		Not issued.	375	Screw, freight, lakes and rivers.
Juno		April 19..	288	Screw, freight, lakes and rivers.
Erin		April 19..	651	Screw, freight, lakes and rivers.
Edna K		Not regis..		Screw, fish tug, Lake Erie.
Arabian	8	May 4..	1,073	Screw, pass., Duluth and Quebec.
Hiawatha		May 8..	46	Screw, yacht, Toronto bay.
Chippewa	2,000	May 8..	1,514	Paddle, pass., Lake Ontario.
Chicora	872	May 8..	931	Paddle, pass., Lake Ontario.
Ongiara	244	May 9..	98	Screw, pass., Niagara river.
Modjeska	801	May 10..	678	Twin screw, pass., Hamilton and Toronto.
City of Chatham ..	627	May 12..	341	Screw, pass., Chatham and Detroit.
Toronto	964	May 15..	2,779	Paddle, pass., Toronto and Prescott.
Kingston	720	May 15..	2,925	Paddle, pass., Toronto and Prescott.
Scotia		May 17..	13	Screw, tug, Lake Huron.
Pappoose	162	May 19..	58	Screw, pass., Detroit river.
Norseman		May 23..	620	Screw, freight, lakes and rivers.
Marion	40	May 29..	9	Screw, pass., Sombra and vicinity.
Hiawatha	295	June 12..	163	Screw, pass., Detroit river.
Hope	300	June 14..	170	Screw, pass., Buffalo and Fort Erie.
Saginaw		June 14..	357	Screw, tug, lakes and rivers.
White Star	474	Aug. 16..		Paddle, pass., Toronto and Grimsby.
1905.				
1906.				
China	190	June 19..	1,554	Screw, pass., Montreal and Duluth.
Total			41,372	

JOHN DODDS.
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year
ended June 30, 1905.

WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Michigan Central ..	281	Sept. 19..	1,522	121 76	Paddle, pass., Windsor and Detroit.
Transport.....	256	Sept. 19..	1,595	127 60	Paddle, pass., Windsor and Detroit.
Transfer.....	233	Sept. 20..	1,511	120 88	Paddle, pass., Windsor and Detroit.
Victoria.....	250	Sept. 20..	192	15 36	Screw, pass., Windsor and Detroit.
Welcome.....	266	Sept. 22..	213	17 04	Screw, pass., Detroit river.
Ariel.....	400	Oct. 10..	202	16 16	Screw, pass., Detroit river.
Pere Marquette .16.....		Not issued.	1,938	155 04	Screw, Lake Erie.
Omar D. Conger...	515	Oct. 25..	196	15 68	Screw, pass., Detroit river.
Niagara.....	100	Nov. 16..	214	17 12	Screw, pass., Buffalo and Fort Erie.
Detroit.....	270	Dec. 20..	2,089	167 12	Screw, pass., Windsor and Detroit.
		1906.			
Michigan.....	500	Mar. 22..	1,730	138 40	Paddle, pass., Windsor and Detroit.
Turret Crown.....		April 5..	1,827		Screw, freight, Duluth and Quebec.
Turret Chief.....		April 5..	1,881		Screw, freight, Duluth and Quebec.
Wahcondah.....		April 8..	1,554		Screw, freight, Duluth and Quebec.
Imperial.....		April 17..	796		Screw, freight, Duluth and Quebec.
Neepawah.....		May 10..	1,799		Screw, freight, Duluth and Quebec.
City of Toledo....	1,360	May 11..	1,004		Paddle, pass., Detroit river.
Owana.....	1,200	May 11..	747		Paddle, pass., Detroit river.
Excelsior.....	250	May 11..	229		Screw, pass., Detroit river.
Garland.....	517	May 12..	248		Screw, pass., Detroit river.
Promise.....	750	May 12..	473		Screw, pass., Detroit river.
Pleasure.....	853	May 13..	490		Screw, pass., Detroit river.
Sappho.....	550	May 13..	224		Screw, pass., Detroit river.
Grace Donner.....	200	May 17..	66		Screw, pass., Sarnia and Pt. Huron.
Tashmoo.....	3,500	May 18..	1,345		Paddle, pass., Detroit river.
Greyhound.....	1,748	May 18..	1,392		Paddle, pass., Detroit river.
Darius Cole.....	1,075	May 18..	538		Paddle, pass., Buffalo and vicinity.
Columbia.....	1,500	May 19..	969		Screw, pass., Detroit river.
Idlwild.....	1,200	May 19..	363		Paddle, pass., Buffalo and vicinity.
Arundell.....	400	May 19..	339		Screw, pass., Buffalo and vicinity.
James Beard.....	138	June 12..	87		Screw, Sarnia and Port Huron.
Total.....			27,773	912 16	

JOHN DODDS,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
		1905.			
Charlie M.	32	July	1..	50	Screw, pass., Muskoka lakes.
Lakefield	40	July	2..	33	Screw, pass., Severn and Sparrow lakes.
National.		July	16..	18	Screw, tug, Toronto bay.
Agnes	20	July	18..	15	Screw, pass., Roaches point and Bellewart.
Lake.		July	19..	13	Screw, tug, Trent canal.
Dredge Simcoe		July	19..	214	Trent canal.
Islay.	317	July	20..	175	Screw, pass., Lake Simcoe.
Minota		July	21..	29	Screw, yacht, Lake Simcoe.
Lorna Doone		July	21..	5	Screw, yacht, Coucheching.
Ella.	40	July	21..	15	Screw, pass., Coucheching.
Soucie.		July	22..	14	Screw, yacht, Coucheching.
Champion.	40	July	23..	42	Screw, pass., Severn and Sparrow lakes.
Abino	40	Aug.	1..	8	Screw, pass., Niagara river.
Maid of the Mist.	80	Aug.	2..	62	Screw, pass., Niagara Falls.
Hector		Aug.	3..	66	Screw, tug, Welland canal.
Chas. E. Armstrong.		Aug.	3..	49	Screw tug,, Welland canal.
Maggie R. Mitchell.		Aug.	3..	40	Screw, tug, Welland canal.
Mary R.		Aug.	3..	44	Screw, tug, Welland canal.
Augusta		Aug.	3..	57	Screw, tug, Welland canal.
Golden City		Aug.	3..	35	Screw, tug, Welland canal.
Ella M.		Aug.	4..	420	Dredge, Welland canal.
Gossoon		not issued			Screw, tug, Welland canal.
Meteor.		Not issued.		47	Screw, tug, Welland canal.
Maggie A. Bennett.		Not issued.		34	Screw, tug, Welland canal.
Isobel		Aug.	5..	507	Dredge, Welland canal.
Euphemia.		Aug.	5..	29	Screw, tug, Welland canal.
Alert		Aug.	5..	47	Screw, tug, Welland eanal.
A. D. Cross		Aug.	6..	47	Screw, tug, Welland canal.
Escort.		Aug.	6..	40	Screw, tug, Welland canal.
Longford		Aug.	16..	53	Screw, freight, Coucheching lake.
Sorona		Aug.	17..	32	Screw, yacht, lakes at Huntsville.
Wahwaskesh		Aug.	20..	10	Paddle, tug, Deer lake.
Linden		Aug.	20..	4	Screw, yacht, Magnetawan river.
Ontario.		Aug.	22..	11	Screw, tug, Muskoka lakes.
Jennie Wilson		Aug.	22..	7	Screw, tug, Muskoka lakes.
Mildred.		Aug.	22..	39	Screw, yacht, Muskoka lakes.
Llano		Aug.	23..	14	Screw yacht,, Muskoka lakes.
Wanda		Aug.	10..	12	Screw, yacht, Muskoka lakes.
Fidelia		Aug.	10..	6	Screw, yacht, Muskoka lakes.
Sky Pilot		Aug.	24..	5	Screw, yacht, Muskoka lakes.
Morinus		Aug.	24..	10	Screw, yacht, Muskoka lakes.
Naniwa.		Aug.	24..	12	Screw, yacht, Muskoka lakes.
Osso		Aug.	24..	6	Screw, yacht, Muskoka lakes.
Lady of the Lake.		Aug.	25..	7	Screw, yacht, Muskoka lakes.
Linnia.		Aug.	25..	5	Screw, tug, Muskoka lakes.
Ethel May		Aug.	25..	13	Screw, tug, Muskoka lakes.
Rulo		Aug.	25..	9	Screw, yacht, Muskoka lakes.
Oriska.		Aug.	25..	6	Screw, yacht, Muskoka lakes.
Allena May		Aug.	26..	16	Screw, tug, Muskoka lakes.
Kacymo.		Aug.	26..	9	Screw, yacht, Muskoka lakes.
Scudder		Not issued.			Screw, yacht, Muskoka lakes.
Edith Ann.		Not issued.		11	Screw, yacht, Muskoka lakes.
Ina		Not issued.		14	Screw, yacht, Muskoka lakes.
Sharon		Not issued.		14	Screw, tug, Muskoka lakes.
Rosseau		Aug.	27..	53	Screw, tug, Muskoka lakes.
Algoma.		Aug.	27..	5	Screw, yacht, Muskoka lakes.
Southwood.		Aug.	27..	19	Screw, tug, Muskoka lakes.
Phoebe		Aug.	27..	11	Screw, yacht, Muskoka lakes.
Manolia.		Aug.	27..	6	Screw, yacht, Muskoka lakes.
Bella Vista.		Aug.	29..	8	Screw, yacht, Muskoka lakes.
Hepburn.		Aug.	29..	15	Screw, yacht, Muskoka lakes.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Willowdee		Aug. 30..	25	Screw, yacht, Muskoka lakes.
Izaak Walton		Not issued.		Screw, yacht, Muskoka lakes.
Iagara.		Aug. 31..	7	Screw, yacht, Muskoka lakes.
W. J. Strong.		Sept. 13..	41	Screw, tug, Georgian bay.
Hackett		Sept. 13..	96	Dredge, Georgian bay.
Topsy.		Sept. 13..	9	Screw, yacht, Georgian bay.
Minnicog.	40	Sept. 14..	35	Screw, pass., Georgian bay.
Sea Gull.		Sept. 14..	9	Screw, tug, Georgian bay.
John Lee, sr.	210	Sept. 14..	88	Screw, pass., Georgian bay.
Lilly May.		Sept. 14..	10	Screw, tug, Georgian bay.
Penetang		Sept. 15..	100	Screw, tug, Georgian bay.
Sweet Mary.		Sept. 15..	13	Screw, tug, Georgian bay.
Voyageur.		Sept. 15..	44	Screw, yacht, Georgian bay.
D. L. White		Sept. 16..	56	Screw, tug, Georgian bay.
City Queen.	40	Sept. 16..	69	Screw, pass., Georgian bay.
Mayflower		Sept. 16..	26	Screw, tug, Georgian bay.
J. C. Else.		Sept. 16..	33	Paddle, tug, Georgian bay.
Skylark.		Sept. 24..	55	Screw, tug, Toronto bay.
Nellie Bly.		Sept. 30..	13	Screw, tug, Toronto bay.
G. P. McIntosh.		Oct. 6..	58	Screw, tug, Georgian bay.
Waubauskene		Oct. 6..	97	Screw, tug, Georgian bay.
John McKay		Oct. 8..	34	Screw, tug, Georgian bay.
M. G. McDonald.		Oct. 8..	29	Screw, tug, Georgian bay.
Welcome.		Oct. 8..	21	Screw, tug, Georgian bay.
Victoria K.		Oct. 8..	41	Screw, tug, Georgian bay.
Sea Queen		Oct. 10..	18	Screw, tug, Georgian bay.
Osprey		Oct. 10..	42	Screw, tug, Georgian bay.
Elite		Oct. 12..	22	Screw, tug, Georgian bay.
Lizzie May.		Oct. 12..	18	Screw, tug, Georgian bay.
Rambler.		Oct. 13..	6	Screw, tug, Georgian bay.
W. E. Gladstone.		Oct. 14..	59	Screw, tug, Georgian bay.
Minnie A. Clarke.		Oct. 14..	36	Screw, tug, Georgian bay.
Esperanza		Oct. 15..	17	Screw, tug, Georgian bay.
Molly S.		Oct. 15..	45	Screw, tug, Georgian bay.
Commodore Jarvis.		Nov. 3..	287	Screw, freight, Toronto bay.
1906.				
Lakeside.	524	March 28..	348	Screw, pass., Lake Ontario.
Midland King	10	April 6..	3,965	Screw, pass., Duluth and Port Colborne.
W. D. Matthews.	10	April 7..	3,965	Screw, pass., Duluth and Buffalo.
D. R. Van Allen.		April 10..	318	Screw, freight, Duluth and Montreal.
Electric.		April 10..	49	Screw, yacht, Lake Ontario.
St. George		April 14..	21	Screw, tug, Toronto harbour.
James Norris		April 18..	50	Screw, tug, Depot harbour.
Clark Bros.	145	April 20..	92	Screw, pass., Toronto bay.
Seguin.	20	April 20..	818	Screw, pass., Duluth and Quebec.
Persia.	173	April 20..	757	Screw, pass., Montreal and Hamilton.
Melbourne		April 20..	894	Screw, freight, Montreal and Toledo.
Holland & Graves.		April 21..	30	Paddle, tug, French river.
Daniel Lamb		April 22..	253	Dredge, Toronto bay.
Picton.	284	April 22..	946	Paddle, pass., Montreal and Hamilton.
United Lumermen.		April 24..	399	Screw, freight, all lakes.
Belleville	204	April 25..	1,153	Paddle, pass., Montreal and Hamilton.
Cuba	100	April 28..	931	Screw, pass., Montreal and Sarnia.
Shamrock.	412	May 4..	154	Paddle, pass., ferry, Toronto bay.
Arlington.	90	May 4..	23	Screw, pass., ferry, Toronto bay.
Kathleen	220	May 4..	110	Screw, pass., ferry, Toronto bay.
Mayflower	900	May 4..	189	Paddle, pass., ferry, Toronto bay.
Primrose.	900	May 4..	189	Paddle, pass., ferry, Toronto bay.
Glenada		May 9..	65	Screw, tug, Magnetawan river.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
		1906.			
John Hanlan.....	176	May	12..	37	Screw, pass., ferry, Toronto bay.
Ada Alice.....	125	May	12..	19	Screw, pass., ferry, Toronto bay.
Luella.....	100	May	12..	38	Screw, pass., ferry, Toronto bay.
Garden City.....	514	May	19..	637	Paddle, pass., Lake Ontario.
Maid of the Mist....	80	May	19..	62	Screw, pass., Niagara falls.
Medora.....	610	May	29..	377	Screw, pass., Muskoka lakes.
Ahmic.....	125	May	29..	77	Screw, pass., Muskoka lakes.
Mink.....		May	30..	56	Screw, freight, Muskoka lakes.
Constance.....	38	May	30..	52	Screw, pass., Muskoka lakes.
Priscilla.....		May	30..	20	Screw, yacht, Muskoka lakes.
Gravenhurst.....		May	30..	29	Screw, tug, Muskoka lakes.
Muskoka.....	299	May	31..	197	Screw, pass., Muskoka lakes.
Kenozha.....	319	May	30..	225	Screw, pass., Muskoka lakes.
Nipissing.....	328	May	31..	328	Paddle, pass., Muskoka lakes.
Nymoca.....		May	31..	25	Screw, tug, Muskoka lakes.
Charlie M.....	32	June	1..	50	Screw, pass., Muskoka lakes.
City of Bala.....		June	1..	74	Screw, tug, Muskoka lakes.
Nymph.....	40	June	1..	29	Screw, pass., Muskoka lakes.
Bertha May.....		June	1..	20	Screw, tug, Muskoka lakes.
Comet.....		June	1..	20	Screw, tug, Muskoka lakes.
Islander.....	173	June	1..	165	Screw, pass., Muskoka lakes.
Queen of the Isles....		June	2..	40	Screw, tug, Muskoka lakes.
Onagonah.....		June	2..	19	Screw, tug, Muskoka lakes.
Rosseau.....		June	2..	53	Screw, tug, Muskoka lakes.
Southwood.....		June	2..	19	Screw, tug, Muskoka lakes.
Oriole.....	125	June	3..	75	Screw, pass., Muskoka lakes.
Niska.....		June	3..	9	Screw, yacht, Muskoka lakes.
Geneva.....	178	June	12..	92	Screw, pass., Lake Couchéching.
Ella.....	25	June	12..	15	Screw, pass., Lake Couchéching.
Wanita.....	109	June	13..	44	Screw, pass., Burks falls and Ahmic harbour.
Theresa.....		June	13..	26	Screw, tug, Burks falls and Ahmic harbour.
Glenrosa.....		June	13..	63	Screw, tug, Burks falls and Ahmic harbour.
Linden.....	18	June	13..	4	Screw, pass., Burks falls and Ahmic harbour.
Emulator.....		June	14..	25	Screw, tug, Burks falls and Ahmic harbour.
Wenonah.....	100	June	14..	161	Screw, paddle, pass., Burks falls and Ahmic har.
Sorona.....		June	14..	32	Screw, yacht, Vernon lakes.
Phoenix.....		June	15..	29	Screw, tug, Vernon lakes.
Joe.....	40	June	15..	57	Screw, pass., lakes at Huntsville.
Florence Main.....	40	June	15..	79	Screw, pass., lakes at Huntsville.
Gem.....	38	June	15..	27	Screw, pass., lakes at Huntsville.
Empress Victoria...	100	June	15..	106	Screw, pass., lakes at Huntsville.
Dolly Gray.....		June	16..	5	Screw, tug, Lake of Bays.
Equal Rights.....	18	June	16..	6	Screw, pass., Lake of Bays.
Lady of the Lake....		June	16..	10	Screw, tug, Lake of Bays.
Lakefield.....	40	June	17..	33	Screw, pass., Severn and Sparrow lakes.
Champion.....	40	June	17..	42	Screw, pass., Severn and Sparrow lakes.
Island Queen.....	335	June	28..	129	Screw, pass., ferry, Toronto bay.
Myrtle.....	40	June	30..	9	Screw, pass., Pt. Abino and Crystal Beach.
Total.....				23,631	

JAMES B. STEWART,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year
ended June 30, 1905.

WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Maid of the Mist...	125	Aug. 2..	99	7 92	Screw, pass., Niagara Falls, N.Y.
		1906.			
Turret Cape		April 18..	1,827	.....	Screw, freight, Duluth and Quebec.
Maid of the Mist		Not issued.	99	.....	Screw, Niagara Falls, N.Y.
Total			2,025		

JAMES B. STEWART,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.	
			Why not Inspected and Class of Vessel.	
Emma	146	94	Screw passenger.	Inspected since June 30, 1905.
Mazeppa	146	97	Screw, passenger.	
City of Dresden	194	124	Screw, passenger.	
Mary Louise.	64	45	Screw, passenger.	
Maple Leaf	Not register'd		Screw, tug.	
City of Mount Clemens.	102	69	Screw, freight.	
Lurline.	66	40	Screw, yacht.	
Roy	6	4	Screw, yacht.	
City of Owen Sound.	754	444	Paddle, passenger.	
Urania	898	424	Paddle, passenger.	
Flyer	4	3	Screw, passenger.	
J. C. Clark.	145	99	Screw, passenger.	
Lady Franklin	5	4	Screw, passenger.	
Saida	14	10	Screw, fishing tug.	
Thistle	36	25	Screw, fishing tug.	
A. Chambers.	23	15	Screw, fishing tug.	Not running.
W. H. Stone	35	17	Screw, tug.	
Mary Amott.	8	6	Screw, tug.	
Ella Taylor	34	23	Screw, tug.	
Sarah E. Day	5	4	Screw, tug.	
L. Shickluna.	16	11	Screw, tug.	
Wales.	350	238	Screw, tug.	
Minette	4	3	Screw, yacht.	
Devenish	3	2	Screw, tug.	
Annie C. Hill	14	9	Screw, yacht.	
W. E. C. U.	6	4	Screw, yacht.	
Louisa	03	9	Screw, yacht.	
Cleopatra.	104	71	Screw, yacht.	
Naiad.	29	20	Screw, yacht.	
Wapenao	5	3	Screw, yacht.	
Kestrel.	7	5	Screw, yacht.	
Ojibway.	194	133	Screw, passenger.	No application.
Ida Bell.	6	3	Screw, fishing tug.	
Maude	19	13	Screw, tug.	
Florence.	113	30	Screw, tug.	
Home Rule	81	45	Screw, tug.	
G. E. Ashley.	10	7	Screw, tug.	
Lillian	5	4	Screw, tug.	
Eagle.	10	7	Screw, tug.	
Caroline.	12	8	Screw, tug.	
Allena May	16	11	Screw, tug.	
Tranquillo.	39	27	Screw, yacht.	
Glenora	17	10	Screw, yacht.	
Sonntag.	7	5	Screw, yacht.	
Total	3,765	2,224		

JOHN DODDS,
JAMES B. STEWART.
Steamboat Inspectors.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Wanhapitæ		July 4..	153	Screw, tug, Georgian bay.
C. W. Chamberlain		July 5..	385	Screw, freight, lakes and rivers.
Britannic.	212	July 6..	428	Paddle, passenger, Collingwood and Soo.
Canada.	500	Not issued.	312	Screw, pass., Georgian bay.
Manitou.	254	July 7..	470	Screw, pass., L. Huron and Georgian bay.
Geyser.		Not issued.	47	Screw, tug, Georgian bay.
Ophir		July 19..	11	Screw, yacht, Georgian bay.
Pearl.		July 20..	11	Screw, yacht, Mill lake.
Halero.		July 20..	8	Screw, yacht, Georgian bay.
James Morris.		July 21..	50	Screw, tug, Georgian bay.
Snowstorm.		July 21..	17	Screw, tug, Georgian bay.
Lady of the Lake.		July 21..	47	Screw, tug, Georgian bay.
Dorothe.		July 21..	8	Screw, yacht, Parry Sound and vicinity.
Lorna Doone.	37	July 21..	26	Screw, pass., Point aux Baril and Moose point.
Bobs.	40	July 22..	38	Screw, pass., Penetang aux Point Baril.
Ina.		July 22..	27	Screw, tug, Georgian bay.
Geraldine.	40	July 22..	65	Screw, pass., Penetang and Point aux Baril.
Albani.		Not issued.	5	Screw, yacht, Parry Sound and vicinity.
Emma.	250	July 23..	146	Screw, pass., Penetang and Point aux Baril.
Ottawa.		July 23..	243	Screw, Duluth and Prescott.
Pilot.		July 25..	70	Screw, tug, Georgian bay.
Edna.		Not issued.	55	Screw, tug, Georgian bay.
Arthur Mac.		Not issued.	68	Screw, fish tug, Georgian bay.
Jolly 4.		Not issued.	10	Screw, fish tug, Georgian bay.
H. Gauthier.		July 27..	9	Screw, fish tug, Georgian bay.
W. S. Oldfield.		July 27..	15	Screw, fish tug, Georgian bay.
Siesta not regist'd.		Not issued.		Screw, yacht, Soo and vicinity.
Alert.		Aug. 12..	9	Screw, tug, Soo and vicinity.
Dolphin.		Aug. 12..	24	Screw, tug, Lake Huron.
Mills.		Not issued.	11	Screw, tug, Lake Manitou.
Mills.		Not issued.	11	Screw, tug, Lake Manitou.
Cynthia.		Not issued.	11	Screw, fish tug, Georgian bay.
Hazard.		Not issued.	34	Screw, tug, North channel.
Charlton.		Oct. 7..	389	Screw, tug, Georgian bay.
Vixen.		Oct. 11..	68	Screw, tug, Soo river.
W. J. Smith.		Oct. 11..	26	Screw, tug, Soo river.
W. A. Rooth.		Oct. 12..	52	Screw, tug, Soo river.
J. L. Beckwith		Oct. 12..	61	Screw, tug, Soo river.
Alert.		Oct. 13..	9	Screw, tug, Soo river.
Algoma	650	Oct. 13..	157	Screw, pass., Pains Iroquoit and Bruce Mines.
N. Dymont.		Oct. 14..	59	Screw, tug, North channel.
E. P. Sawyer.		Oct. 14..	52	Screw, tug, North channel.
Bertha Endress.		Not issued.	32	Screw, tug, North channel.
Killarney Belle		Oct. 15..	28	Screw, tug, North channel.
James McKean		Oct. 15..	36	Screw, tug, North channel.
Espanola.	22	Oct. 27..	7	Screw, pass., Spanish river.
W. H. Seymour.	19	Oct. 18..	85	Screw, pass., Blind river and Killarney.
J. H. McDonald		Oct. 18..	41	Screw, tug, North channel.
Ahteek	20	Oct. 18..	29	Screw, pass., Soo and Killarney.
Stella.		Oct. 19..	16	Screw, tug, North channel.
P. S. Heidsordt.		Oct. 19..	45	Screw, tug, North channel.
Fanny Arnold.		Oct. 19..	73	Screw, tug, North channel.
Everard.		Oct. 20..	25	Screw, fish tug, North channel.
Edna Ivan.	40	Oct. 20..	54	Screw, pass., Thessalon and Little Current.
Surprise		Oct. 21..	19	Screw, fish tug, North channel.
Ethel.		Oct. 22..	13	Screw, fish tug, North channel.
Iroquois	250	Oct. 22..	240	Screw, pass., Georgian bay ports.
Tecumseh		Oct. 22..	10	Screw, tug, North channel.
J. G. Gidley.		Not issued.	57	Screw, pass., North channel.
Scotch Thistle.	27	Oct. 22..	17	Screw, pass., North channel.
Agnes Smith.		Oct. 22..	57	Screw, tug, North channel.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

WEST ONTARIO, COLLINGWOOD DIVISION.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Geo. W. Cuyler.	20	Oct. 24..	56	Screw, pass., Soo and French river.
Fred. Davidson	40	Oct. 24..	43	Screw, pass., Soo and Killarney.
Camilla.		Oct. 24..	24	Screw, fish tug, North channel.
Glyn		Oct. 25..	20	Screw, fish tug, North channel.
Helen S.	19	Oct. 25..	86	Screw, pass., Collingwood and Soo.
Gypsy.	10	Oct. 26..	11	Screw, pass., Killarney and Soo.
Traveller.		Not issued.	438	Screw, tug, Georgian bay.
Magnolia.		Nov. 9..	367	Screw, tug, Georgian bay.
Metamora		Nov. 9..	239	Screw, tug, Georgian bay.
Margherita.		Nov. 10..	31	Screw, yacht, Georgian bay.
Minitaga		Nov. 10..	73	Screw, tug, Georgian bay.
Menodora.		Nov. 10..	73	Screw, tug, Georgian bay.
Eveiyn		Nov. 11..	85	Screw, tug, Georgian bay.
Cynthia.		Nov. 22..	35	Screw, fish tug, Georgian bay.
Annie Moiles	25	Nov. 25..	71	Screw, pass., Killarney and Soo.
Alice G.		April 1..	36	Screw, fish tug, Georgian bay.
1906				
Maggie May		April 1..	46	Screw, fish tug, Georgian bay.
Hugh S.		April 1..	24	Screw, fish tug, Georgian bay.
Annie M.		April 1..	33	Screw, fish tug, Georgian bay.
C. A. Boone.		April 3..	44	Screw, fish tug, Georgian bay.
Maude S.		April 3..	14	Screw, fish tug, Georgian bay.
W. H. Price.		April 3..	13	Screw, fish tug, Georgian bay.
Saucy Jim		April 3..	93	Screw, fish tug, Georgian bay.
Algonquin.	10	April 5..	1806	Screw, pass. and frt., Duluth and Quebec.
Rosedale.	8	April 5..	1507	Screw, pass. and frt., Duluth and Quebec.
Athabaska.	314	April 6..	2269	Screw, pass. & frt., Owen Sound & Ft. William.
Alberta.	314	April 6..	2282	Screw, pass. & frt., O. Sound & Ft. William.
Manitoba	314	April 6..	2616	Screw, pass. & frt., O. Sound & Ft. William.
Juno		April 6..	28	Screw, fish tug, Georgian bay.
Clucas.		April 6..	28	Screw, fish tug, Georgian bay.
Wm. Siebold		April 6..	22	Screw, fish tug, Lake Huron.
Caribou.		Not issued.	597	Screw, pass., Georgian bay and L. Superior.
Sea King.		April 7..	26	Screw, fish tug, Lake Huron.
Gordon Gauthier.		April 7..	26	Screw, fish tug, Lake Superior.
Thomas Maitland.		April 8..	107	Screw, fish tug, Georgian bay.
Westmount.		April 10..	1875	Screw, freight, Duluth and Quebec.
Germanic.	476	April 10..	1014	Screw, pass., Collingwood and Duluth.
Myles.		April 10..	1199	Screw, freight, Duluth and Quebec.
Haddington.		Not issued.	603	Screw, freight, Duluth and Quebec.
Midland Queen.	13	April 10..	1993	Screw, pass., Duluth and Prescott.
City of Midland.	486	April 10..	974	Screw, pass., Collingwood and Soo.
Britannic	212	April 11..	428	Paddle, pass., Collingwood and Soo.
City of Collingwood	665	April 11..	1387	Screw, pass., Collingwood and Duluth.
Fairmount.		April 11..	895	Screw, freight, Quebec and Duluth.
Tadousac	10	April 12..	2359	Screw, pass., lakes and rivers.
Minnie M.	381	April 14..	613	Screw, pass., L. Huron and Georgian bay.
Ossafrage.	225	April 15..	632	Screw, pass., Collingwood and Michipicoten.
Philadelphia.		Not issued	148	Screw, pass., Lake Superior.
R. A. McLean.		April 17..	30	Screw, tug, Soo river.
John J. Noble		April 17..	33	Screw, fish tug, Lake Superior.
Captain Jim.		April 17..	58	Screw, fish tug, Lake Superior.
C. E. Ainsworth.		April 17..	76	Screw, fish tug, Lake Superior.
B. M. Fraser.		April 18..	50	Screw, tug, Georgian bay.
W. J. Emerson.		April 18..	28	Screw, fish tug, Lake Superior.
General Weitzel.		April 19..	32	Screw, tug, Soo and vicinity.
Shawanaga.		April 20..	96	Screw, tug, Lake Superior.
Macassa.	712	April 25..	529	T. screw, pass., Hamilton and Toronto
Geyser.		April 26..	47	Screw, tug, Georgian bay.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Telegram.....	69	April 26..	198	Screw, pass., Collingwood and Soo.
City of Windsor....	258	April 26..	511	Screw, pass., Collingwood and Soo.
Dredge No. 9.....		April 28..	187	Dredge, Midland harbour.
Rover.....		April 28..	51	Screw, tug, Midland harbour.
Reginald.....		April 29..	186	Screw, tug, Georgian bay.
Lilly.....		April 29..	22	Screw, tug, Victoria harbour.
Lilly Smith.....		Not issued.	275	Screw, freight, lakes and rivers.
Harrison.....		May 3..	150	Screw, tug, lakes and rivers.
Dredge Frank.....		May 3..	185	Dredge, Owen Sound.
Port Elgin Queen...		May 3..	37	Screw, tug, Georgian bay.
Arbutus.....		May 4..	49	Screw, tug, Georgian bay.
The Belle.....		May 4..	31	Screw, fish tug, Georgian bay.
Balize.....		May 9..	247	Screw, fish tug, Georgian bay.
Saronic.....	200	May 11..	961	Screw, pass., Windsor and Duluth.
Onaping.....		May 15..	256	Screw, tug, Georgian bay.
J. H. Jones.....	245	Not issued.	152	Screw, pass., Georgian bay and L. Huron
Charlie Jones.....		May 19..	16	Screw, fish tug, Georgian bay.
Commodore.....		May 30..	40	Screw, tug, Soo and vicinity.
W. L. Davis.....		May 30..	46	Screw, fish tug, Lake Superior.
Shamrock.....		May 31..	14	Screw, yacht, Soo river.
Ripple.....		May 31..	5	Screw, tug, Soo river.
Iota.....		May 31..	6	Screw, tug, Soo river.
Enola, not regist'd..		Not issued.		Screw, tug, Soo river.
Agnes.....		June 1..	23	Screw, tug, Georgian bay.
Lorne Hale, not reg.		Not issued.		Screw, tug, Lake Penadage.
Espanola.....	22	June 3..	7	Screw, pass., Spanish river.
Reliance.....		June 7..	311	Screw, tug, Georgian bay.
City of Toronto....	238	June 10..	782	Paddle, pass., Collingwood and Killarney.
Majestic.....	532	June 19..	578	Screw, pass., Fort William and Toledo.
Maud D.....	140	June 20..	81	Screw, pass., Penetang and Point aux Baril.
Penetang.....		June 21..	100	Screw, tug, Georgian bay.
C. W. Chamberlain ..		Not issued.	385	Screw, freight, lakes and rivers.
Wahnapiæ.....		June 21..	153	Screw, tug, Georgian bay.
Dredge Hackett ..		June 22..	96	Penetang harbour.
Topsy.....		Not issued.	9	Screw, pass., yacht, Penetang and vicinity.
Mabel G.....		June 22..	10	Screw, pass., yacht, Penetang and vicinity.
W. J. Strong.....		June 22..	41	Screw, tug, Penetang and vicinity.
John Lee, sr.....		Not issued.	88	Screw, pass., Penetang and vicinity.
Midland.....		June 23..	56	Screw, tug, Georgian bay....
Voyageur.....		June 23..	44	Screw, tug, Georgian bay.
City Queen.....	40	June 24..	69	Screw, pass., Penetang and Point aux Baril.
Odessa.....		Not issued.	12	Screw, yacht, Midland and vicinity.
Waubauskene.....		June 26..	135	Screw, tug, Georgian bay.
Mayflower.....		June 26..	26	Screw, tug, Georgian bay.
Total.....			45,806	

E W. McKEAN,
Steamboat Inspector.

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

WEST ONTARIO, COLLINGWOOD DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Ogemaw.....	502	July 11..	594	47 52	Screw, pass., lakes, bays & rivers.
Fortune.....		July 11..	594	16 00	Screw, pass., Pt. Iroquois & Soo R.
Fortune.....		Not issued.	200	.....	Screw, pass., Pt. Iroquois & Soo R.
		1906			
Newmount		April 1..	1,889	.....	Screw, freight, Duluth & Montreal.
Wexford.....		April 3..	2,104	.....	Screw, freight, Duluth & Montreal.
J. H. Plummer.....		April 4 .	1,582	.....	Screw, freight, Duluth & Quebec.
A. E. Ames.....		April 5..	1,637	.....	Screw, freight, Duluth & Quebec.
Neebing.....		April 5..	1,879	.....	Screw, freight, Duluth & Quebec.
Strathcona.....		April 5..	1,881	.....	Screw, freight, Duluth & Montreal.
Donnacona.....		April 6..	1,906	.....	Screw, freight, Duluth & Montreal.
Turret Court		April 8..	1,879	.....	Screw, freight, Duluth & Quebec.
Paliki.....		Not issued.	1,578	.....	Screw, freight, Duluth & Quebec.
King Edward		April 14..	571	45 68	Paddle, pass., Soo and Toledo.
Monkshaven		Not issued.	1,415	.....	Screw, freight, Duluth & Quebec.
Neafield		Not issued.	1,454	.....	Screw, freight, Duluth & Quebec.
Thomas Friant.....		Not issued.	81	.....	Screw, pass., Soo and vicinity..
Theano.....		May 1..	1,534	.....	Screw, freight, Duluth & Quebec.
Total.....			22,348	\$109 20	

E. W. McKEAN,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.	
			Why not Inspected and Class of Vessel.	
John Haggart.....	202	117	Screw, passenger.	Inspected since June 30, 1905.
Harold B. Phillips.....	66	31	Screw, tug.	
T. J. Collop.....	63	42	Screw, tug.	
Venetta.....	31	21	Screw, yacht.	
Gertie C.....	15	10	Screw, tug.	
Sanford.....	56	38	Screw, tug.	
A. Seamen.....	76	52	Screw, tug.	
Iris.....	16	9	Screw, yacht.	
Beaver.....	29	12	Screw, tug.	
Una.....	22	15	Screw, tug.	
Stiletto.....	10	14	Screw, tug.	
Heather Belle.....	20	13	Screw, tug.	
Siesta.....	15	9	Screw, tug.	
Dispatch.....	33	22	Screw, fishing tug.	
R. J. Morrell.....	40	27	Screw, fishing tug.	
Sea Gull.....	19	13	Screw, tug.	
Islander.....	6	4	Screw, yacht.	
Home Rule.....	3	2	Screw, tug.	
Harvey Neelon.....	65	47	Screw, tug.	
Rheata.....	27	18	Screw, tug.	
Signal.....	94	64	Screw tug.	No application.
Clipper.....	46	29	Screw, tug.	
Florence M.....	8	6	Screw, fishing tug.	
L. McCarthy.....	36	25	Screw, fishing tug.	
E. Reid.....	36	25	Screw, tug.	
Annie Siemon.....	19	13	Screw, tug.	
F. A. Hodgson.....	63	43	Screw, fishing tug.	
Laura M.....	18	12	Screw, fishing tug.	
Mizpah.....	18	12	Screw, yacht.	
C. E. Benham.....	140	93	Screw, tug.	
Jessie M.....	14	8	Screw, tug.	
Dalton McCarthy.....	54	37	Screw, fishing tug.	
Total.....	1,364	879		

E. W. McKEAN,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1905.					
Myrtle	40	July	4..	9	Screw, pass., gasoline, Pt. Abino.
Brittanic	212	July	6..	428	Paddle, pass., Collingwood and Soo.
Canada	500	July	7..	312	Screw, pass., Georgian bay and vicinity.
Manitou	254	July	7..	470	Screw, pass., Georgian bay and Lake Huron.
Clark Bros.	200	July	18..	92	Screw, pass., Toronto and coasting.
John Hanlan	182	July	18..	37	Screw, pass., Toronto bay.
Arlington	100	July	18..	23	Screw, pass., Toronto bay.
Tom Fawcett	175	July	20..	224	Paddle, pass., Kingston and Cape Vincent.
Geraldine	40	July	26..	65	Screw, pass., Penetang and Pt. aux Baril.
Bobs	40	July	26..	38	Screw, pass., Penetang and Pt. aux Baril.
Lorna Doone	37	July	27..	26	Screw, pass., Moose pt. and Pt. aux Baril.
Emma	250	July	27..	146	Screw, pass., Penetang and Pt. aux Baril.
Mazeppa	285	July	28..	146	Screw, pass., Penetang and Pt. aux Baril.
John Lee, sr	{ C. 284 L. 200 }	July	30..	88	Screw, pass., Collingwood and Penetang.
Minnicog	40	Aug.	1..	35	Screw, pass., Point aux Baril and Penetang.
Maud D	140	Aug.	1..	81	Screw, pass., Point aux Baril and Penetang.
City Queen	40	Aug.	2..	69	Screw, pass., Point aux Baril and Penetang.
Lillie Smith		Aug.	5..	275	Screw, freight, lakes and rivers.
Acacia	200	Aug.	12..	107	Screw, pass., Hamilton and Burlington.
Juno		Aug.	18..	288	Screw, freight, Montreal and Duluth.
Great Eastern	200	Aug.	19..	1,080	Paddle, pass., Windsor and Detroit.
Huron	245	Aug.	19..	1,052	Screw, pass., Windsor and Detroit.
Lansdowne	200	Aug.	20..	1,571	Paddle, pass., Windsor and Detroit.
Delila	25	Aug.	26..	4	Screw, pass., Corunna and Stag island.
International		Aug.	26..	851	Screw, freight, Port Huron and Sarnia.
Tecumseh		Aug.	26..	840	Screw, freight, lakes and rivers.
Comfort	40	Aug.	27..	14	Screw, pass., Sombra and Marine city.
Haddington	10	Sept.	6..	1,603	Screw, pass., lakes and rivers.
Lake Michigan		Sept.	10..	573	Screw, freight, lakes and rivers.
Caribou	378	Sept.	15..	597	Screw, pass., Owen Sound and Fort William.
J. H. Jones	245	Sept.	19..	152	Screw, pass., Lake Huron and Georgian bay.
City of New York		Sept.	27..	292	Screw, freight, Soo and Montreal.
City of Dresden	100	Oct.	7..	194	Screw, pass., Windsor and Lake Erie.
John Haggart	235	Oct.	24..	184	Screw, pass., Soo and Blind river.
Algoma	650	Oct.	24..	157	Screw, pass., Pt. Iroquois and Bruce Mines.
Annie Moiles	25	Oct.	25..	71	Screw, pass., Killarney and Soo.
Espanola	22	Oct.	27..	7	Screw, pass., Spanish river.
Edna Ivan	40	Oct.	28..	54	Screw, pass., Little Current and Thessalon.
W. H. Seymour	19	Oct.	28..	85	Screw, pass., Blind river and Killarney.
Fanny Arnold	31	Oct.	29..	73	Screw, pass., Killarney and Soo.
Ahteek	20	Oct.	29..	29	Screw, pass., Killarney and Soo.
Fred. Davidson	40	Oct.	28..	43	Screw, pass., Killarney and Soo.
George W. Cuyler ..	20	Nov.	1..	56	Screw, pass., Soo and French river.
Scotch Thistle	27	Nov.	2..	17	Screw, pass., Killarney and Blind river.
Iroquois	250	Nov.	3..	240	Screw, pass., Georgian bay and ports.
Gypsy	10	Nov.	5..	11	Screw, pass., Killarney and Soo.
Helen S.	19	Nov.	5..	86	Screw, pass., Collingwood and Soo.
Minnie M	381	Nov.	7..	613	Screw, pass., Lake Huron and Georgian bay.
R. C. Britain		Nov.	10..	213	Screw, freight, Toronto and Pt. Dalhousie.
W. D. Matthews ..	10	Nov.	22..	3,965	Screw, pass., lakes and rivers.
Tadousac	10	Nov.	26..	2,359	Screw, pass., lakes and rivers.
Commodore Jarvis ..		Nov.	28..	287	Screw, freight, Toronto and Hamilton.
1906.					
Lakeside	524	Mar.	28..	348	Screw, pass., Toronto and St. Catherines.
Midland King	6	April	7..	3,965	Screw, pass., Duluth and Port Colborne.
W. D. Matthews ..	10	April	7..	3,965	Screw, pass., Duluth and Port Colborne.
Algonquin	10	April	10..	1,806	Screw, pass., Duluth and Quebec.
Rosedale	8	April	11..	1,507	Screw, pass., Duluth and Quebec.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*WEST ONTARIO DIVISION—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Athabasca	314	April 13..	2,269	Screw, pass., Owen Sound and Fort William.
Manitoba	314	April 13..	2,616	Screw, pass., Owen Sound and Fort William.
Alberta	314	April 13..	2,282	Screw, pass., Owen Sound and Fort William.
Westmount		April 17..	1,875	Screw, freight, Duluth and Quebec.
Fairmount		April 18..	1,895	Screw, freight, Duluth and Quebec.
Myles		April 19..	1,199	Screw, freight, Duluth and Quebec.
Rosemount		April 20..	1,580	Screw, freight, Duluth and Quebec.
Seguin	20	April 24..	818	Screw, pass., Duluth and Quebec.
Persia	173	April 24..	757	Screw, pass., Montreal and Hamilton.
Melbourne		April 25..	894	Screw, freight, Montreal and Toledo.
Picton	284	April 25..	946	Paddle, pass., Montreal and Hamilton.
Cuba	100	April 26..	931	Screw, pass., Montreal and Sarnia.
City of Collingwood	665	April 27..	1,387	Screw, pass., Collingwood and Duluth.
Germanic	476	April 28..	1,014	Screw, pass., Collingwood and Duluth.
City of Midland	486	April 28..	974	Screw, pass., Collingwood and Soo.
Telegram	69	April 29..	198	Screw, pass., Collingwood and Soo.
Britannic	193	April 29..	428	Paddle, pass., Collingwood and Soo.
Ossifrage	225	May 1..	632	Screw, pass., Collingwood and Michipocoten.
Arabian	8	May 5..	1,073	Screw, pass., Duluth and Quebec.
Chicora	872	May 8..	931	Paddle, pass., Toronto and Lake Ontario.
Ongiara	244	May 8..	98	Screw, pass., Niagara and Lewiston. . .
Corona	1,456	May 8..	1,274	Paddle, pass., Toronto and Lake Ontario.
Macassa	712	May 15..	529	Screw, pass., Toronto and Hamilton.
Garden City	(L. 514) (C. 760)	May 16..	637	ddle, pass., Toronto and Lake Ontario.
Mayflower	900	May 17..	189	Paddle, pass., Toronto bay.
Shamrock	412	May 17..	154	Paddle, pass., Toronto bay.
Primrose	900	May 17..	189	Paddle, pass., Toronto bay.
D. R. Van Allan		May 18..	318	Paddle, freight, Duluth and Montreal.
Toronto	964	May 18..	2,779	Paddle, pass., Toronto and Prescott.
Kingston	720	May 18..	2,925	Paddle, pass., Toronto and Prescott.
Kathleen	220	May 19..	110	Screw, pass., Toronto bay.
Belleville	204	May 22..	1,153	Paddle, pass., Hamilton and Montreal.
Saronic	200	May 24..	1,961	Screw, pass., Windsor and Duluth.
Monarch	181	May 25..	2,017	Screw, pass., Windsor and Duluth.
Marion	40	May 25..	9	Screw, pass., Sombra, Stag isld. & Marine city.
Hiawatha	295	May 26..	163	Screw, pass., Amherstburg and Port Huron.
Huronic	340	May 26..	3,330	Screw, pass., Duluth and Windsor.
Midland Queen	13	May 26..	1,993	Screw, pass., Duluth and Prescott.
Modjeska	950	May 29..	678	Screw, pass., Toronto and Hamilton.
Hope	300	May 30..	170	Screw, pass., Buffalo and Fort Erie.
Maid of the Mist	80	May 31..	62	Screw, pass., Niagara falls river.
Chippewa	2,000	June 5..	1,514	Paddle, pass., Toronto and Lake Ontario.
Ontario	500	June 7..	1,615	Paddle, pass., Windsor and Detroit.
Winona	250	June 7..	231	Screw, pass., Amherstburg and Sarnia.
City of Chatham	627	June 8..	362	Screw, pass., Chatham and Detroit.
Papoose	162	June 8..	57	Screw, pass., Amherstburg and Port Huron.
Juno		June 10..	288	Screw, freight, Montreal and Duluth.
Erin		June 12..	651	Screw, freight, Quebec and Duluth.
Majestic	532	June 19..	1,578	Screw, pass., Toledo and Fort William.
City of Montreal	190	June 20..	1,554	Screw, pass., Montreal and Duluth.
Turbinia	1,550	June 21..	1,064	Screw, pass., Toronto and Hamilton.
City of Toronto	238	June 22..	782	Paddle, pass., Collingwood and Killarney.
White Star	474	Aug. 28..		Paddle, pass., Toronto and Grimsby.
Island Queen	336	June 30..	129	Screw, pass., Toronto bay.
Myrtle	40	June 30..	9	Screw, pass., Pt. Albino.

W. EVANS,
Hull Inspector.

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

WEST ONTARIO DIVISION—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Maid of the Mist ...	125	Aug. 17..	99	7 92	Screw, pass., Niagara falls.
Ariel	400	Aug. 19..	202	16 16	Screw, Windsor and Detroit.
Michigan Central ..	281	Aug. 20..	1,522	121 76	Paddle, Windsor and Detroit.
Transport	250	Aug. 22..	1,595	127 60	Paddle, Windsor and Detroit.
Victoria	250	Aug. 22..	192	15 36	Screw, Windsor and Detroit.
Garland	517	Aug. 22..	248	19 84	Screw, Amherstburg and Port Huron
Promise	1,000	Aug. 23..	473	37 84	Screw, Amherstburg and Pt. Huron.
Columbia	1,500	Aug. 23..	969	77 52	Screw, Amherstburg and Pt. Huron
Excelsior	250	Aug. 23..	229	18 32	Screw, Windsor and Detroit.
Sappho	550	Aug. 24..	224	17 92	Screw, Amherstburg and Pt. Huron.
Pleasure.....	1,088	Aug. 24..	490	39 20	Screw, Amherstburg and Pt. Huron.
Hattie	200	Aug. 24..	67	5 36	Screw, Detroit and Sarnia.
Transfer.....	233	Aug. 25..	1,511	120 88	Screw and pad., Detroit & Windsor.
City of Toledo	1,120	Aug. 25..	1,004	80 32	Paddle, Toledo and Port Huron.
James Beard	138	Aug. 25..	87	6 96	Screw, Sarnia and Fort Huron.
Grace Dormer.....	185	Aug. 25..	66	5 28	Screw, Sarnia and Port Huron.
Harley		Not issued.	24	1 84	Screw.
Welcome	266	Aug. 27..	213	17 04	Screw, Port Huron and Windsor.
		1904.			
Fortune	502	Oct. 31..	200	16 00	Screw, Pt. Iroquois and Soo river.
		1905.			
Pere Marquette 16.	52	Oct. 4..	1,938	155 04	Screw, lakes and rivers.
Niagara	100	Nov. 21..	214	17 12	Screw, Buffalo and Fort Erie.
Detroit.....	270	Dec. 2..	2,089	167 12	Screw, Windsor and Detroit.
		1906.			
Turret Cape		April 6..	1,827		Screw, freight, Duluth and Quebec.
Theano		April 6..	1,534		Screw, freight, Duluth and Quebec.
Neebing		April 10..	1,879		Screw, freight, Duluth and Quebec.
A. E. Ames		April 11..	1,637		Screw, freight, Duluth and Quebec.
I. H. Plummer		April 11..	1,582		Screw, freight, Duluth and Quebec.
Stratheona		April 12..	1,881		Screw, freight, Duluth and Montreal.
Donnacona.....		April 12..	1,906		Screw, freight, Duluth and Montreal.
Turret Court		April 12..	1,879		Screw, freight, Duluth and Quebec.
Newmount		April 14..	1,889		Screw, freight, Duluth and Montreal.
Wexford		April 18..	2,104		Screw, freight, Duluth and Montreal.
Turret Chief.....		April 21..	1,881		Screw, freight, Duluth and Quebec.
Turret Crown		April 21..	1,827		Screw, freight, Duluth and Quebec.
Wahcondah.....		April 22..	1,554		Screw, freight, Duluth and Quebec.
Imperial		May 10..	796		Screw, freight, Duluth and Quebec.
Neepawah		May 11..	1,799		Screw, freight, Duluth and Quebec.
Darius Cole	1,800	May 18..	538		Paddle, Buffalo and Crystal beach.
Michigan	500	June 6..	1,730	138 40	Paddle, Windsor and Detroit.
City of Toledo	1,360	Mar.. 31..	1,003		Paddle, Toledo and Sarnia.
Owana	1,200	Mar. 31..	747		Paddle, Toledo and Sarnia.
Tashmoo	3,500	May 18..	1,344		Paddle, Pt. Huron and Amherstburg.
Greyhound	1,748	May 18..	1,392		Paddle, Toledo and Goderich.
Idlewild	1,200	May 31..	363		Paddle, Buffalo and Crystal beach.
Total			46,748	1,230 80	

W. EVANS,
Hull Inspector.

SESSIONAL PAPER No. 21

STEM VESSELS Inspected for the Year ended June 30, 1905.

EAST ONTARIO, KINGSTON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Edmond		May 20..	39.10	Screw, tug, Rideau canal.
Aberdeen		July 20..	12.65	Screw, pleasure yacht.
Donnelly		July 1..	318.91	Paddle, tug, L. Ont. and R. St. L.
Bill				Screw, yacht, gasoline.
Jessie Bain	125	July 1..	66.58	Screw, pass., Kingston and Prescott.
White Star		July 13..	8.88	Screw, tug, pass., Kawartha lakes.
Majestic	180	July 10..	67.77	Screw, Cos. Victoria and Peterboro.
Estelle		July 13..	8.24	Screw, pleasure yacht.
Empress	224	July 10..	84.48	Screw, pass., Cos. Vict. and Peterboro.
Stoney Lake	272	July 10..	155.82	Screw, pass., Cos. Vict. and Peterboro.
Haslitt		July 10..	23.70	Paddle, Alligator tug.
Alert	150	July 10..	56.38	Screw, pass., Cos. Vict. and Peterboro.
Ajax		July 10..	32.97	Screw, tug, Cos. Vict. and Peterboro.
Calumet	30	July 10..	21.87	Screw, pass., Cos. Vict. and Peterboro.
Pearl	18	July 10..	6.39	Screw, pass., Cos. Vict. and Peterboro.
Ogemah	175	July 16..	71.75	Paddle, pass., Cos. Vict. and Peterboro.
Esturion	300	July 10..	139.39	Paddle, pass., Cos. Vict. and Peterboro.
Hiawatha			22.25	Screw, Cos. Vict. and Peterboro.
Lady of the Lake ..	38	July 10..	32.95	Screw, pass., Cos. Vict. and Peterboro.
Beaver		July 10..	91.50	Paddle, Cos. Vict. and Peterboro..
Baptiste			7.51	Paddle, steam punt, Cos. Vict. and Peterboro..
Maple Leaf		July 10..	26.08	Screw, tug, Cos. Vict. and Peterboro..
Waterwitch		July 10..	17.70	Screw, tug, Cos. Vict. and Peterboro.
Manita	150	July 10..	34.10	Screw, pass., Cos. Vict. and Peterboro.
Cora	40	July 10..	22.61	Screw, pass., Cos. Vict. and Peterboro.
Kenosha	350	July 10..	266.20	Paddle, pass., Cos. Vict. and Peterboro.
Wawinet			67.90	Screw, pleasure yacht.
Stranger		July 10..	53.41	Screw, tug, Cos. Vict. and Peterboro.
Grey Hound			37.35	Screw, tug, Cos. Vict. and Peterboro.
Marie Louise		July 10..	32.19	Screw, tug, Cos. Vict. and Peterboro.
Rockaway		July 10..	6.80	Screw, tug, Lindsay waters.
McClintock		July 10..	20.72	Paddle, alligator tug, Cos. Vict. & Peterboro.
Dauntless	12	July 10..	3.38	Screw, pass., Cos. Vict. and Peterboro..
Dawn		July 10..	20.20	Screw, tug, Cos. Vict. and Peterboro.
Kawartha	30	July 10..	16.69	Screw, pass., Cos. Vict. and Peterboro.
Alexandra		July 10..	104.92	Screw, tug, Cos. Vict. and Peterboro.
North Star	150	July 10..	39.60	Screw, pass., Cos. Vict. and Peterboro.
Arthemese			10.75	Screw, pass., Rice lake and tributaries.
Beaver	40	July 25..	18.00	Screw, pleasure yacht.
City of Peterboro ..	310	July 10..	224.29	Screw, pass., Cos. Vict. and Peterboro.
Water lily	125	July 10..	53.93	Twin screw, Rice lake and tributaries.
Mermaid			10.95	Screw, pass., Rice lake and tributaries.
Rainbow	100	July 10..	50.69	Screw, pleasure yacht, Rice lake & tributaries.
Rob Roy			12.17	Screw, pass., Rice lake and tributaries.
St. Charles			26.44	Screw, pleasure yacht, Rice lake and tributaries.
Frontenac		Aug. 1..	110.76	Screw, steam punt, Rice lake and tributaries.
Blue Bell		Aug. 1..	11.97	Screw, tug, River St. Lawrence.
Onawa			2.30	Screw, pleasure yacht, River Lawrence.
Water Lilly				Screw, gasoline, River St. Lawrence.
Florence		Aug. 1..	3.08	Screw, private yacht, River St. Lawrence.
Trent		Aug. 1..	19.51	Paddle, alligator tug, Bay of Quinte.
Florence		Aug. 1..	6.70	Screw, fish tug, Bay of Quinte.
Prince Edward			18.22	Paddle, ferry, Glenora and Adolphustown.
Lillian B	10	Aug. 15..	3.76	Screw, pass., Carleton Place and vicinity.
Commodore			3.06	Screw, Carleton Place and vicinity..
Kilbirnie		Aug. 10..	15.23	Screw, pleasure yacht, Rideau canal.
Tropic	30	Aug. 17..	8.86	Screw, pass., Kingston and Ottawa.
Geraldine		Aug. 10..	17.90	Screw, private yacht, Kingston and Ottawa.
Aileen	40	Aug. 1..	24.00	Screw, pass., Kingston and Ottawa.
Jopl.	40	Aug. 30..	10.54	Screw, pass., Kingston and Prescott.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

EAST ONTARIO, KINGSTON DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1905.		
Wm. Johnston.		Sept. 1..	94.72	Screw, tug, River St. Lawrence.
M. & W.		Sept. 2..	8.48	Screw, tng, River St. Lawrence.
Princess Louise	53	Sept. 1..	26.36	Screw, pass., Cornwall and Dundas.
Gracie.	38	Sept. 1..	10.50	Paddle, pass., Cornwall and Stanley Island.
Mary Ellen.		Sept. 1..	20.22	Screw, tug, canal and River St. Lawrence.
Annie Barrett		Sept. 1..	41.89	Screw, tug, canal and River St. Lawrence.
Ivy.	18	Sept. 1..	7.43	Screw, pass., Cornwall and Stanley Island.
Grenada.	67	Sept. 1..	57.00	Screw, pass., Cornwall and Dundee.
Dredge No. 6.		Sept. 1..	100.00	Screw, canal and River St. Lawrence.
Mable McDonald.		Sept. 1..	41.81	Screw, tug, canal and River St. Lawrence.
Mary.		Sept. 1..	53.49	Screw, tug, canal and River St. Lawrence.
Myra.		Sept. 1..	73.21	Screw, tug, canal and River St. Lawrence.
Dredge, D. Stewart.		Sept. 1..	295.21	Screw, canal and River St. Lawrence.
John Hunter		Sept. 1..	32.14	Screw, tug, River St. Lawrence and canal.
Umbria		Sept. 1..	42.98	Screw, tug, canal and River St. Lawrence.
King Ben		Sept. 27..	145.36	Screw, freight, canal and River St. Lawrence.
Advance.			1030.60	Screw, freight, Great lakes.
Westport.			80.27	Screw, freight, Rideau canal.
Wm. Davis.		Aug. 10..	40.23	Screw, tug, River St. Lawrence.
St. Lawrence.		Aug. 10..	258.10	Dredge, canal and River St. Lawrence.
Stranger.	40	Aug. 10..	65.26	Screw, pass., Kingston and Ottawa.
International.		June 20..	395.31	Twin screw, car ferry, Prescott & Ogdensburg.
H. M. Pellatt		April 3..	1591.50	Screw, freight, Duluth and Quebec.
		1906		
Wolfe Islander.	175	April 4..	223.95	Paddle, pass., ferry Kingston and Prescott.
Advance.		April 8..	1030.60	Screw, freight, Duluth and Quebec.
Rescue.	25	April 10..	52.29	Screw, pass., Desoronto and Picton.
Reliance.	25	April 10..	239.14	Twin screw, Chicago and Quebec.
Resolute.	25	April 10..	371.86	Twin screw, Chicago and Quebec.
Desoronto.	85	April 10..	54.57	Screw, pass., Trenton and Picton.
Arctic.		April 11..	100.51	Screw, freight, River St. Lawrence.
Ranger.	10	April 11..	13.83	Screw, pass., Desoronto and Picton.
Ella Ross.	300	April 11..	324.88	Paddle, pass., Brighton and Prescott.
Armenia.	250	April 11..	109.99	Screw, pass., Trenton and Prescott.
Iona.		April 12..	231.53	Screw, freight, Chicago and Montreal.
Aletha.	350	April 13..	171.27	Screw, pass., Brighton and Montreal.
Emerson		April 13..	276.47	Screw, tug, lakes and rivers.
Simla.		April 13..	1490.04	Screw, freight, Great Lakes.
India.		April 13..	976.49	Screw, freight, Great Lakes.
D. D. Calvin.		April 13..	794.53	Screw, freight, Duluth and Quebec.
Rideau Queen.	275	April 14..	350.75	Screw, pass., Kingston, Montreal and Ottawa.
Navajo.			145.36	Screw, freight, St. Lawrence river.
Aurelia.		April 17..	32.05	Screw, tug, Bay of Quinte.
Trenton.		April 17..	100.00	Dredge, Bay of Quinte.
Lloyd S. Porter.		April 18..	488.63	Screw, freight, Chicago and Quebec.
Aberdeen.		April 18..	141.86	Screw, freight, Lake and river.
Alexandria.	300	April 18..	863.15	Paddle, pass., Charlotte and Quebec.
H. F. Bronson		April 20..	137.12	Twin screw, tug, lake and river.
David G. Thompson		April 20..	185.05	Screw, tug, lake and river.
Bothnia.		April 24..	833.36	Screw, freight, Chicago and Quebec.
Glide.		April 25..	77.90	Screw, tug, lake and river.
Valeria.	100	April 26..	51.55	Screw, pass., Kingston and Prescott.
Parthia.		April 27..	198.13	Paddle, River St. Lawrence.
Kate		April 28..	22.41	Screw, pleasure yacht.
Iroquois		May 1..	287.18	Spoon dredge, St. Lawrence Canals.
Torpedo		May 1..	197.69	Drill boat St. Lawrence Canals.
Frank.		May 1..	15.97	Twin screw, tug, St. Lawrence Canals.
Gilbert.		May 1..	40.83	Twin screw, tug, St. Lawrence Canals.
Central City.		May 2..	223.62	Spoon dredge, St. Lawrence Canals.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*EAST ONTARIO, KINGSTON DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
		1906.			
D. S. Walker.		May	2..	55.55	Screw, tug, St. Lawrence Canals..
D. P. Dey.		May	2..	11.26	Screw, tug, St. Lawrence Canals.
Dredge No. 4.		May	2..	175.41	Spoon dredge, St. Lawrence Canals.
Kathleen.	145	July	10..	37.36	Screw, pass., Cos. Vict. and Peterboro.
Niagara.	403	May	5..	396.43	Screw, pass., Toronto and Montreal.
Water Lilly.		May	5..	95.09	Screw, freight, lake and river.
Madge.		May	5..	7.22	Screw, pleasure yacht.
John Randall.		May	6..	194.45	Screw, freight, Kingston and Ottawa.
Rideau King.	300	May	8..	265.92	Screw, pass., Clayton and Ottawa.
America.	600	May	10..	520.53	Paddle, pass., Trenton and Montreal.
Westport.		May	15..	80.27	Screw, freight, Rideau canal.
Argyle.	800	May	17..	700.29	Paddle, pass., L. Ontario and R. St. Lawrence.
Chiefton.		May	1..	434.68	Paddle, tug, River St. Lawrence
Annie Lake.	40	May	20..	18.52	Screw, pass., Brighton and Prescott.
Reindeer.	125	May	20..	58.29	Screw, pass., Prinyers Cove and Napanee.
Florence.		May	23..	3.08	Screw, private yacht.
Jessie Forward.		May	20..	5.64	Screw, pleasure yacht.
North King.	525	May	24..	872.95	Paddle, pass., L. Ontario ports and Prescott.
C. W. Cole.		May	24..	15.50	Screw, fish tug, Bay of Quinte.
Skylark.		May	29..	43.29	Screw, pleasure yacht.
Vacuna.		May	30..	51.77	Screw, pleasure yacht.
Whereuow.	100	May	31..	47.78	Screw, pass., Kingston and Prescott.
Varuna.	275	May	15..	134.04	Screw, pass., Trenton and Prescott.
Lee.	40	June	7..	8.73	Screw, pass., Kingston and Ottawa.
Victoria.	186	June	8..	58.10	Screw, pass., Kingston and Cornwall.
Spry.	20	June	12..	12.81	Screw, pass., Lake Temagami & tributaries.
Reserve.		June	13..	48.74	Screw, tug, River St. Lawrence..
Maisoneuve.		June	14..	26.01	Screw, tug, lake service.
Louise.					Screw, gasoline.
Caspian.	415	June	17..	957.44	Paddle, pass., Charlotte and Prescott.
City of Belleville.	200	June	20..	101.17	Screw, pass., Kingston and Prescott.
Magedoma.				138.21	Screw, pleasure yacht.
Illecillewaet.		June	20..	15.69	Screw, pleasure yacht..
Leone.	20	June	20..	4.26	Screw, pass., Kingston and Prescott.
Zeila.	20	June	20..	3.40	Screw, pleasure yacht.
Kenneth.		June	20..	4.11	Screw, pleasure yacht.
Antelope.	40	June	20..	24.98	Screw, pass., Kingston and Prescott.
Brockville.	341	June	20..	190.75	Screw, pass., Kingston and Cornwall
Dortha.		June	20..	50.98	Screw, pleasure yacht.
Ellen.	40	June	20..	25.10	Screw, pass., Kingston and Cardinal.
International.		June	20..	395.31	T. screw, freight, Prescott and Ogdensburg.
Cardinal.		June	24..	236.55	T. screw, freight, Fair Haven and Montreal.
Albani.		June	20..	57.83	Screw, pleasure yacht.
Kinirving.		June	28..	145.40	Screw, freight, Rideau canal.
Donnelly.		June	29..	318.91	Paddle, tug, Lake Erie and River.
Total.				25,073.48	

T. P. THOMPSON,
Steamboat Inspector.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

EAST ONTARIO, KINGSTON DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.		Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.			\$ cts.	
I'll See.				5.00	0.40	Screw, gasoline yacht.
Mabel.	25	June	20..	27.00	2.16	Screw, Trenton and Ogdensburg.
Columbia.	40	Sept.	1..	26.00	2.08	Screw, Trenton and Ogdensburg.
Wm. Armstrong. .	40	June	20..	181.24	14.48	Screw, Prescott and Ogdensburg.
	1906					
Islander.	468	April	11..	118.61		Paddle, Trenton & Ogdensburg.
New Island Wanderer.	400	April	29..	123.00		Paddle, Kingston and Ogdensburg.
Island Bele.	393	June	1..	89.77		Screw, R. St. Lawrence & L. Ontario
St. Lawrence	866	May	23..	312.90		Paddle, C. Vincent and F. Covington.
Riverside.	300	May	19..	90.00		Screw, Tibbetts Pt. & F. Covington.
Henry Plumb.		June	13..	92.00		Screw, ferry, Ogdensb'g & Prescott.
Indienne.	21	May	16..	26.00		Screw, Tibbetts Pt. & F. Covington.
Niagara.	31	May	26..	35.00		Screw, North-west Lakes & Rivers.
Total.				1,126.52	19 12	

T. P. THOMPSON,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

EAST ONTARIO DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Jessie Bain.	66.58	41.23	Not in commission.
Maida Vale.	18.74	12.75	No application.
Idle Hour.	2.40	1.65	Not in commission.
Victoria.	3.90	2.66	Not in commission.
Flash.	4.74	3.23	Not in commission.
Minnie May.	10.20	8.04	Not in commission.
Comet.	7.60	2.90	Not in commission.
Lassie.	5.52	3.75	Not in commission.
Mary Ethel.	98.61	56.13	Not in commission.
Marmora.	12.96	8.82	Not in commission.
Lorlei.	5.88	4.00	Not in commission.
Mollie.	10.72	7.29	Not in commission.
Total.	247.85	152.45	

T. P. THOMPSON,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

EAST ONTARIO, KINGSTON DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1905.		
Go Now		Not issued.	1	Screw, Kingston and Prescott.
Lolita		Not issued.		Screw, Kingston and Prescott.
Ellen.	(M. 30) (P. 40)	July 8.	25	Screw, pass., Kingston and Montreal.
Islay.	317	July 13.	175	Screw, pass., Lake Simcoe and tributaries.
Ella.	40	July 14.	15	Screw, pass., Lake Couchiching.
Champlain	40	July 14.	42	Screw, pass., Severn river and tributaries.
Lakefield	120	July 15.	50	Screw, pass., Severn river and tributaries.
Longford		Not issued.	53	Screw, Lake Couchiching and tributaries.
Elgin L. Lewis.	120	July 15.	50	Screw, pass., Lake Couchiching and tributaries
Manita	150	July 16.	34	Screw, pass., Cos. Vict. and Peterboro.
Cora	40	July 16.	23	Screw, pass., Cos. Vict. and Peterboro.
Esturian.	300	July 16.	139	Paddle, pass., Cos. Vict. and Peterboro.
Kenosha.	350	July 18.	266	Paddle, pass., Vict. Cos. and Peterboro.
Dauntless.	12	July 18.	3	Screw, pass., Kawartha lakes.
Kawartha.	30	July 18.	17	Screw, pass., Kawartha lakes.
Maple Leaf.		Not issued.	26	Screw, pass., Kawartha lakes.
Pearl.	18	July 19.	6	Screw, pass., Bobcaygeon and vicinity.
Calumet	30	July 19.	22	Screw, pass., Cos. Vict. and Peterboro.
Ogemah	175	July 20.	72	Paddle, pass., Kawartha lakes and tributaries.
Hiawatha.		Not issued.	22	Screw, pass., Bobcaygeon and vicinity.
Lady of the Lakes.	38	July 20.	33	Screw, pass., Cos. Vict. and Peterboro.
City of Peterboro.	310	July 20.	224	Twin screw, Rice lake and tributaries.
North Star.	150	July 20.	40	Twin screw, Rice lake and tributaries.
Sovereign	150	July 20.	45	Twin screw, Rice lake and tributaries.
Alert	150	July 21.	56	Twin screw, Cos. Vict. and Peterboro.
Majestic	180	July 21.	68	Twin screw, Cos. Victoria and Peterboro.
Empress	224	July 21.	84	Twin screw, Cos. Vict. and Peterboro.
Stoney Lake	272	July 21.	156	Twin screw, Cos. Vict. and Peterboro.
Waterlily	125	July 22.	54	Twin screw, Rice lake and tributaries.
Rainbow.	100	July 22.	51	Twin screw, Rice lake and tributaries.
Beaver		Not issued.	18	Twin screw, Rice lake and tributaries.
City of Belleville.	200	July 25.	101	Screw, pass., Kingston and Prescott.
Jessie Bain.	125	May 1.	67	Screw, pass., Kingston and Prescott.
Waterlily		Not issued.		Screw, pass., Kingston and Brockville.
Onawa		Not issued.		Screw, pass., Kingston and Prescott.
Tropic.	30	Aug. 10.	9	Screw, pass., Kingston and Ottawa.
Aileen	40	Aug. 10.	24	Screw, pass., Kingston and Ottawa.
Lillian B.	20	Aug. 10.	4	Screw, pass., Carleton Place and vicinity.
Commodore.	25	Not issued.	3	Screw, pass., Carleton Place and vicinity.
Wanita	109	Aug. 18.	44	Screw, pass., Burks falls and Ahmic harbour.
Wenonah	100	Aug. 18.	161	Paddle and screw, Burks falls and Ahmic harb'r.
Joe.	40	Aug. 19.	57	Screw, pass., Huntsville and vicinity.
Empress Victoria.	100	Aug. 19.	106	Screw, pass., Huntsville and vicinity.
Mary Louise.	40	Aug. 20.	64	Screw, pass., Lake of Bays and tributaries.
Equal Rights.	18	Aug. 20.	6	Screw, pass., Lake of Bays and tributaries.
Maple Leaf.		Not issued.		Screw, Lake of Bays and tributaries.
Gem	38	Aug. 22.	27	Screw, pass., Port Sidney and vicinity.
Mink	25	Aug. 23.	56	Screw, pass., Muskoka lakes.
Ahmic.	65	Aug. 23.	70	Screw, pass., Muskoka lakes.
Charlie M.	32	Aug. 23.	50	Screw, pass., Muskoka lakes.
Islander	107	Aug. 23.	165	Screw, pass., Muskoka lakes.
Nymph.	40	Aug. 23.	29	Screw, pass., Muskoka lakes.
Oriole	100	Aug. 24.	75	Screw, pass., Muskoka lakes.
Morinus	25	Aug. 24.	10	Screw, pass., Muskoka lakes.
Constance.	38	Aug. 24.	52	Screw, pass., Muskoka lakes.
		1904.		
Kenozha.	250	Dec. 1.	225	Screw. pass., Muskoka lakes.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*EAST ONTARIO, KINGSTON DIVISION—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
City of Bala.....	40	Aug. 25..	74	Screw, pass., Muskoka lakes.
Medora.....	349	Aug. 25..	377	Screw, pass., Muskoka lakes.
1904.				
Nipissing.....	277	Nov. 30..	275	Paddle, pass., Muskoka lakes.
1905.				
Muskoka.....	250	Aug. 25..	197	Screw, pass., Muskoka lakes.
Agnes.....	20	Aug. 26..	14	Screw, pass., Bellewart and Roches Pt.
Jopl.....	40	Aug. 30..	11	Screw, pass., Kingston and Prescott.
Tom Fawcett.....	175	April 1..	224	Paddle, pass., Kingston, C. Vincent & Gananoq'e
Nellie.....	20	Sept. 10..	7	Screw, pass., Kingston and Ottawa.
Grenada.....	67	Sept. 12..	57	Screw, pass., Cornwall and Dundee.
Princess Louise.....	53	Sept. 12..	26	Screw, pass., Cornwall and Dundee.
Gracie.....	38	Sept. 12..	11	Paddle, pass., Cornwall and Stanley island.
Ivy.....	18	Sept. 12..	7	Screw, pass., Cornwall and Stanley island.
Stranger.....	40	Aug. 10..	65	Screw, pass., Kingston and Ottawa.
Cardinal.....		Oct. 11..	237	Twin screw, freight, Fair Haven and Montreal.
International.....		Nov. 18..	395	Twin screw, freight, Ogdensburg and Prescott.
1906.				
Advance.....		April 11..	1,031	Screw, freight, Duluth and Quebec.
Iona.....		April 12..	232	Screw, freight, Chicago and Montreal.
D. D. Calvin.....		April 13..	750	Screw, freight, Duluth and Quebec.
India.....		April 13..	976	Screw, freight, Duluth and Quebec.
Simla.....		April 13..	1,490	Screw, freight, Duluth and Quebec.
Reliance.....	25	April 14..	239	Twin screw, Chicago and Quebec.
Resolute.....	25	April 14..	372	Twin screw, Chicago and Quebec.
Deseronto.....	85	April 14..	55	Screw, pass., Trenton and Picton.
Ella Ross.....	300	April 14..	325	Paddle, pass., Brighton and Prescott.
Ranger.....	10	April 14..	14	Screw, pass., Deseronto and Picton.
Rescue.....	25	April 14..	52	Screw, pass., Deseronto and Picton.
Lloyd S. Porter.....		April 17..	489	Screw, freight, Chicago and Quebec.
Aletha.....	(M. 240) (P. 350)	April 19..	171	Screw, pass., Brighton and Montreal.
Pierrepoint.....	400	April 24..	252	Paddle, pass., Trenton and Prescott.
Bothnia.....		April 26..	833	Screw, freight, Chicago and Quebec.
Kathleen.....	143	Not issued.	37	Screw, pass., Cos. Vict. and Peterboro.
Alexandria.....	300	April 28..	863	Paddle, pass., Charlotte and Quebec.
Valeria.....	(P. 100) (G. 135)	April 29..	52	Screw, pass., Kingston and Prescott.
Rideau King.....	(R. 150) (C. 300)	May 1..	266	Screw, pass., Clayton and Ottawa.
Wolfe Islander.....	175	May 2..	224	Paddle, pass., Kingston and Prescott.
John Randall.....		May 8..	194	Screw, freight, Kingston and Ottawa.
1905.				
Beaver.....	40	July 22..	18	Screw, pass., Cos. Vict. and Peterboro.
1906.				
America.....	(M. 40) (P. 600)	May 11..	521	Paddle pass., Treton nd Montreal.
Annie Lake.....	40	May 18..	19	Screw, pass., Brighton and Prescott.
Reindeer.....	125	May 19..	58	Screw, pass., Prinysers cove and Napanee.
Argyle.....	(L. 535) (R. 800)	May 20..	710	Paddle, pass., L. Ontario and R. St. Lawrence.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*EAST ONTARIO DIVISION, KINGSTON—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
North King	525	May 24..	873	Paddle, pass., L. Ontario and Prescott.
Prince Edward	3	May 30..	18	Paddle, pass., Glenora and Adolphustown.
Varuna	275	May 30..	134	Screw, pass., Brighton and Prescott.
Armenia	250	May 30..	110	Screw, pass., Trenton and Prescott.
Spry	20	June 30..	13	Screw, pass., Lake Temagami and tributaries.
Rideau Queen	275	June 3..	351	Screw, pass., Kingston, Montreal and Ottawa.
Geneva	215	June 6..	92	Screw, pass., Lake Couchéching.
Islay	300	June 7..	175	Screw, pass., Lake Simcoe and tributaries.
Islander	173	June 7..	165	Screw, pass., Muskoka lakes.
Mink	25	Not issued.	56	Screw, pass., Muskoka lakes.
Nymph	32	June 8..	29	Screw, pass., Muskoka lakes.
Morinus	25	June 8..	10	Screw, pass., Muskoka lakes.
Constance	38	June 8..	52	Screw, pass., Muskoka lakes.
Charlie M.	32	June 8..	50	Screw, pass., Muskoka lakes.
Oriole	125	June 9..	75	Screw, pass., Muskoka lakes.
Muskoka	299	June 9..	197	Screw, pass., Muskoka lakes.
Medora	600	June 10..	377	Screw, pass., Muskoka lakes.
Nipissing	328	June 10..	275	Paddle, pass., Muskoka lakes.
Ahmic	125	June 10..	77	Screw, pass., Muskoka lakes.
Kenozha	319	June 10..	225	Screw, pass., Muskoka lakes.
Joe	40	June 10..	57	Screw, pass., Huntsville and vicinity.
Empress Victoria	100	June 12..	106	Screw, pass., Huntsville and vicinity.
Gem	38	June 12..	27	Screw, pass., Huntsville and Port Sidney.
Mary Louise	40	June 12..	64	Screw, pass., Partage and Dorrett.
Equal Rights	18	June 12..	6	Screw, pass., Partage and Dorrett.
Maple Leaf		Not issued.		Screw, pass., Partage and Dorrett.
Florence Main	40	June 13..	79	Screw, pass., Huntsville and vicinity.
Wanita	109	June 13..	44	Screw, pass., Burks falls and Ahmic harbour.
Wenonah	100	June 13..	161	Paddle and screw, Burks falls and Ahmic harb'r
Ella	25	June 14..	15	Screw, pass., Lake Couchéching.
Lakefield	40	June 14..	33	Screw, pass., Severn and Sparrow lakes.
Rob Roy	10	June 14..	5	Screw, pass., Severn and Sparrow lakes.
Champion	40	June 14..	42	Screw, pass., Severn and Sparrow lakes.
Agnes	20	June 15..	14	Screw, pass., Bellewart and Roches Pt.
Caspian	500	June 17..	957	Paddle, pass., Charlotte and Prescott.
Niagara	L. 250 R. 403	June 19..	396	Screw, pass., Toronto and Montreal.
Brockville	341	June 21..	191	Screw, pass., Kingston and Cornwall.
Antelope	40	June 21..	25	Screw, pass., Kingston and Prescott.
Victoria	C. 125 P. 186	June 22..	58	Screw, pass., Kingston and Cornwall.
City of Belleville	200	June 22..	101	Screw, pass., Kingston and Prescott.
International		June 22..	395	Twin screw, freight, Ogdensburg and Prescott.
Leone	20	June 22..	4	Screw, pass., Kingston and Prescott.
Riverview	10	June 24..	5	Screw, pass., Kingston and Brockville.
Louise	20	Not issued.		Screw, pass., Kingston and Prescott.
Lee	40	June 27..	9	Screw, pass., Kingston and Ottawa.

M. R. DAVIS,
Hull Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

EAST ONTARIO, KINGSTON DIVISION—Concluded.

HULL INSPECTION—Concluded.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Castanet	175	July 30..	54	4 32	Screw, pass., Kingston & Ogdensburg
I'll See.		Not issued.			Screw, Kingston and Ogdensburg.
Mabel.	25	Sept. 3..	27	2 16	Screw, Trenton and Ogdensburg.
Columbia.	40	Sept. 7..	26	2 08	Screw, Trenton and Ogdensburg.
Sirius	50	Sept. 12..	23	2nd insp...	Screw, C. Vincent and Montreal.
Wm. Armstrong. . .	40	Dec. 29..	181	2nd insp...	Screw, Prescott and Ogdensburg.
		1906.			
Islander.	468	April 15..	119		Paddle, pass., Trenton & Ogdensburg
H. M. Pellatt.		April 19..	1,592		Screw, freight, Duluth and Quebec.
New Isl. Wanderer.	400	May 5..	123		Screw, pass., Kingston & Ogdensburg
St. Lawrence.	866	May 23..	312		Paddle, pass., Kingston & Ogdensb'g
Riverside.	500	May 19..	90		Screw, pass., C. Vincent & Ogdensb'g
Indienne	21	May 16..	26		Screw, pass., Tibbets Pt. and Ft.
Niagara	L. C 15 R 31	May 26..	36		Screw, pass., Lake C. and R. St. Lawrence.

M. R. DAVIS,
Hull Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Sand King.....		July 6..	158	Screw, freight, Ottawa and St. Lawrence rivers.
Reserve.....		July 8..	49	Screw, govt. steamer for buoy service.
Lady of the Lake...	680	July 13..	607	Paddle, pass., Newport and Magog.
John A.....		July 13..	20	Screw, tug, Lake Memphremagog.
Hazel E.....		July 13..	13	Screw, tug, Lake Memphremagog.
Pocahontas.....	95	July 14..	56	Screw, pass., Lake Massawippi.
Marquis of Lorne ..		Not issued.	20	Screw, Ottawa river.
Dorothy.....		July 26..	12	Screw, tug, Lake Nipissing.
Turtle.....		July 26..	38	Warp, tug, Lake Nipissing.
Princess.....	163	July 29..	527	Paddle, pass., Montreal and Carillon.
Bout de L'Isle.....	10	July 29..	15	Screw, ferry, Bout de L'Isle and Charlemagne.
Garnet.....	150	July 30..	152	Paddle, pass., Montreal and Cornwall.
Ingomar.....		Not issued.	22	Screw, yacht, St. Lawrence river.
Richelieu.....		Not issued.	113	Paddle, pass., St. Lawrence river.
Tiger.....	10	Aug. 3..	4	Screw, pass., Barry's bay and Combermere.
Ruby.....		Aug. 3..	11	Screw, tug, Barry's bay and Combermere.
Annie C.....		Aug. 8..	6	Screw, tug, Lake Memphremagog.
Elsie.....		Not issued.	7	Screw, pass., Lake Memphremagog.
E. G. Laverdure.....		Aug. 10..	54	Screw, pass., Ottawa river.
Col. By.....		Aug. 10..	9	Screw, pass., Ottawa river.
Otter.....		Aug. 18..	21	Warp, tug, Lake Kippewa.
North river.....		Aug. 18..	22	Warp, tug, Lake Kippewa.
Argo.....	40	Aug. 19..	95	Screw, pass., North river.
Alice.....	40	Aug. 19..	26	Screw, pass., Lake Kippewa.
R. Hurdman.....	40	Aug. 19..	93	Screw, pass., Lake Kippewa.
C. E. Read.....		Aug. 19..	13	Warp, pass., Lake Kippewa.
Temiskaming.....	40	Aug. 20..	295	Screw, pass., Lake Temiscamingue.
Jubilee.....	40	Aug. 22..	54	Screw, pass., Lake Temiscamingue.
Clyde.....	35	Aug. 22..	29	Screw, pass., Lake Temiscamingue.
Ville Marie.....	10	Aug. 22..	32	Screw, pass., Lake Temiscamingue.
Meteor.....	240	Aug. 22..	299	Screw, pass., Lake Temiscamingue.
Scotchman.....		Aug. 23..	21	Screw, fish boat, Lake Temiscamingue.
Blanche.....		Not issued.	30	Twin screw, Lake Temiscamingue.
Geisha.....	25	Aug. 24..	20	Screw, pass., Lake Temiscamingue.
Swan.....	10	Aug. 24..	12	Screw, pass., Lake Temiscamingue.
Alexandra.....		Aug. 24..	416	Paddle, tug, Lake Temiscamingue.
Lady Minto.....		Aug. 25..	403	Paddle, tug, Lake Temiscamingue.
Alert.....		Aug. 25..	53	Screw, tug, Lake Temiscamingue.
Mink.....		Aug. 25..	14	Warp, tug, Lake Temiscamingue.
Beaver.....		Aug. 25..	13	Warp, tug, Lake Temiscamingue.
John.....	40	Sept. 2..	34	Centre wheel, pass., Carillon and Pt. Fortune.
Missisquoi.....	260	Sept. 3..	169	Screw, pass., Richelieu river.
A. B. Cook.....		Sept. 6..	34	Screw, tug, St. Lawrence river.
Ottomac.....		Sept. 6..	196	Dredge, St. Lawrence river.
Sorel.....	312	Sept. 7..	158	Paddle, pass., Montreal and Beauharnois.
Beaver.....		Sept. 19..	41	Screw, tug, St. Lawrence river.
Glide.....	25	Sept. 22..	80	Screw, pass., Calumet and Hawkesbury.
T. Osborne.....		Sept. 22..	25	Screw, tug, Ottawa river.
Idler.....		Sept. 22..	51	Stern wheel, tug, Ottawa river.
Leo.....	20	Sept. 22..	2	Screw, pass., Hawkesbury and Grenville.
Bonenfant.....	10	Sept. 23..	31	Twin screw, pass., L'Orignal and Calumet.
F. W. Avery.....		Sept. 23..	14	Warp, tug, Ottawa river.
Jessie.....		Sept. 24..	19	Screw, tug, St. Lawrence river.
Chaffey.....	40	Oct. 4..	42	Screw, pass., Valleyfield and Lancaster.
White Squall...		Oct. 4..	7	Screw, yacht, St. Lawrence river.
Surveyor.....	8	Oct. 14..	50	Screw, pass., Lachine and Caughnawaga.
Wild Rose.....		Nov. 10..	10	Screw, yacht, St. Lawrence river.
1906.				
Longueuil...	300	April 5..	365	Paddle, pass., Montreal and Longueuil.
Boucherville.	600	April 5..	419	Paddle, pass., Montreal and Boucherville.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*MONTREAL DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Charlemagne		April 6..	62	Screw, tug, St. Lawrence river.
St. Laurent	280	April 17..	546	Paddle, pass., Montreal and Berthier.
Florence		April 18..	62	Screw, tug, Ottawa river.
G. H. Harris		April 18..	87	Screw, tug, Ottawa river.
Sir Hector		April 18..	40	Screw, tug, Ottawa river.
Archie Stewart		April 18..	80	Screw, tug, Ottawa river.
E. H. Bronson		April 19..	285	Paddle, tug, Ottawa river.
Alex. Fraser		April 19..	320	Paddle, tug, Ottawa river.
Hercules		April 19..	21	Warp, tug, Ottawa river.
Victoria	400	April 19..	188	Paddle, pass., Pembroke and Des Joachims.
Mahigama	40	April 19..	20	Screw, pass., Pembroke and Fort William.
Dolphin		April 20..	70	Screw, tug, Ottawa river.
Hebron		April 20..	149	Screw, freight, lakes and rivers.
Scotsman	22	April 20..	265	Screw, pass., Ottawa and Montreal.
Rockland		April 21..	78	Screw, tug, Ottawa river.
Mansfield	15	April 21..	169	Screw, pass., Ottawa and Gatineau point.
Ada		April 21..	29	Screw, tug, Ottawa river.
Chaffey	40	April 24..	42	Pass., Valleyfield and Lancaster.
Salabery	40	April 24..	222	Screw, pass., Valleyfield and Montreal.
Monitor		April 24..	32	Screw, freight, Valleyfield and Montreal.
White Squall		April 24..	7	Screw, yacht, St. Lawrence river.
Pierrepont	400	April 25..	252	Screw, pass., St. Lawrence river.
Glide	25	April 26..	80	Screw, pass., Calumet and Hawkesbury.
Idler		April 26..	51	Stern wheel, tug, Ottawa river.
F. W. Avery		April 26..	14	Warp, tug, Ottawa river.
Leo	20	April 26..	2	Screw, pass., Hawkesbury and Calumet.
G. H. Notter	10	April 27..	10	Screw, tug, Ottawa river.
Bonenfant	10	April 27..	31	Twin screw, L'Orignal and Calumet.
Russell		April 27..	76	Screw, tug, Ottawa river.
Sovereign	700	April 28..	637	Paddle, pass., Montreal and Carillon.
Duchess of York	428	April 28..	490	Paddle, pass., Montreal and Carillon.
Princess	163	April 28..	527	Paddle, pass., Montreal and Carillon.
Surveyor	8	April 28..	50	Screw, pass., Lachine and Caughnawaga.
Welshman	25	May 1..	156	Screw, pass., Montreal and Ottawa.
Ottawan	100	May 1..	311	Screw, pass., Montreal and Ottawa.
Hall	50	May 1..	247	Screw, pass., Montreal and Ottawa.
T. Osborne		May 1..	25	Screw, tug, Ottawa river.
Bonito	10	May 2..	17	Screw, pass., L'Orignal and Calumet.
Ida	40	May 2..	247	Screw, pass., Montreal and Ottawa.
W. P. Buckley		May 2..	27	Screw, tug, rivers and canals.
Blanche		May 2..	28	Screw, government tug.
Chateauguay	440	May 3..	222	Paddle, pass., Montreal and Chateauguay.
Victoria	243	May 3..	181	Screw, pass., Ottawa and Thurso.
Desile		May 5..	46	Government tug.
Challenge		May 5..	100	Government dredge.
Dandy		Not issued.	46	Screw, tug, St. Lawrence river.
Willie C		May 8..	8	Screw, tug, St. Lawrence river.
Little Giant		May 8..	100	Dredge, St. Lawrence river.
Lyon C		May 8..	19	Screw, tug, St. Lawrence river.
Dredge No. 4		May 8..	100	St. Lawrence river.
Empress	800	May 15..	678	Paddle, pass., Ottawa and Grenville.
Alert		May 15..	50	Screw, government boat.
G. B. Greene	600	May 15..	255	Paddle, pass., Lake Deschene.
Albert		May 15..	269	Paddle, tug, Lake Deschene.
G. B. Pattee II		May 15..	51	Screw, tug, Lake Deschene.
Pontiac	40	May 16..	116	Paddle, pass., Chats lake.
Madawaska		May 16..	15	Warp, tug, Chats lake.
Amable du Fond		May 16..	17	Warp, tug, Chats lake.
Hamilton		May 16..	320	Paddle, tug, Chats lake.
J. L. Murphy		May 16..	173	Screw, tug, Chats lake.
Sampson		May 16..	15	Warp, tug, Chats lake.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

MONTREAL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1906.					
D. B. Mulligan	25	May	17..	77	Screw, pass., Pembroke and Desjardins.
C. B. Powell		May	17..	272	Paddle, tug, Upper Ottawa.
Frontenac		May	17..	5	Screw, yacht, Upper Ottawa.
Pembroke		May	17..	194	Paddle, tug, Upper Ottawa.
May Flower	40	May	18..	59	Stern wheel, pass., Barry's bay and Combermere.
Tiger	10	May	18..	4	Screw, pass., Madawaska river.
Ruby		May	18..	11	Screw, tug, Madawaska river.
Valleyfield	450	May	23..	417	Twin screw, pass., Montreal and St. Helen's isld.
Riviere du Loup	40	June	1..	199	Paddle, pass., Coté St. Catherine and Verdun.
Maude	30	June	6..	269	Paddle, pass., Montreal and Ottawa.
May		June	7..	21	Screw, yacht, St. Lawrence river.
Empress		June	13..	36	Screw, tug, Lake Nipissing.
Vanwoodland	100	June	13..	37	Screw, pass., Lake Nipissing.
Sparrow	40	June	13..	38	Screw, pass., Lake Nipissing.
Booth	40	June	13..	347	Paddle, pass., Lake Nipissing.
Nosbonsing		June	14..	25	Screw, tug, Lake Nosbonsing.
Hazel B	125	June	14..	27	Screw, pass., Lake Nipissing.
Northern Belle	260	June	15..	222	Screw, pass., Lake Nipissing.
Osprey		June	15..	6	Screw, fish boat, Lake Nipissing.
Mollie		June	15..	10	Warp, tug, Lake Nipissing.
Shoofly		June	15..	10	Screw, fish boat, Lake Nipissing.
Elgin L. Lewis	140	June	15..	50	Screw, pass., Lake Nipissing.
Monarch		June	15..	37	Warp, tug, Lake Nipissing.
Fleur de Mai		June	16..	7	Screw, tug, Lake Nipissing.
West Arm		June	16..	27	Screw, tug, Lake Nipissing.
Catherine C	7	June	16..	19	Screw, pass., Lake Nipissing.
Sea Flower		June	16..	7	Screw, fish boat, Lake Nipissing.
Dorothy	10	June	16..	38	Screw, pass., Lake Nipissing.
Turtle		June	16..	55	Warp, tug, Lake Nipissing.
Verva	40	June	17..	55	Screw, pass., Lake Wahnapiatae.
Wanda	30	June	19..	39	Screw, pass., Lake Temagami.
Marie		Not issued.		4	Screw, Lake Temagami.
Chance		Not issued.		5	Screw, Lake Temagami.
Queen		June	21..	15	Screw, tug, Lake Trout.
1905.					
Smooth Smith		Dec.	1..	42	Grain elevator, Montreal harbour.
1906.					
Lady of the Lake	680	June	27..	607	Paddle, pass., Newport and Magog..
John A		June	27..	20	Screw, tug, Lake Memphremagog.
Hazel E		June	27..	13	Screw, tug, Lake Memphremagog.
Elsie		Not issued.		7	Screw, Lake Memphremagog.
Alma	10	June	28..	6	Screw, pass., Lake Memphremagog.
Pocahontas	95	June	28..	56	Screw, pass., Lake Massawippi.
Total				17,824	

WM. LAURIE,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

MONTREAL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Sverre		May 22..	,3 265	.....	Screw, freight, Montreal and Sydney
Hermod		May 9..	2,984	.....	Screw, freight, Montreal and Sydney.
Snel		May 4..	1,320	.....	Screw, freight, Montreal and Sydney.
Havso		June 1..	1,921	.....	Screw, freight, Montreal and Sydney.
Agnar		June 2..	1,567	.....	Screw, freight, Montreal and Sydney.
Harald		June 3..	2,988	.....	Screw, freight, Montreal and Sydney.
Total			14,345	.....

WM. LAURIE,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

MONTREAL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Nellie Reid		July 6..	56	Screw, tug, St. Lawrence river.
Tim Doyle.....		July 7..	15	Screw, tug, Lachine canal.
Maggie R. King.....		July 8..	27	Screw, tug, Soulanges canal.
Kate.....		Not issued.	61	Screw, tug, St. Lawrence river.
Maggie May		Aug. 4..	29	Screw, tug, Ottawa.
Gertie.....		Aug. 30..	21	Screw, tug, Lachine canal.
1906.				
St. Peter	45	April 8..	66	Screw, tug and pass., Montreal harbour.
Robert Mackay	95	April 8..	129	Screw, tug, pass., Montreal harbour.
Derrick No. 5		April 8..	100	Montreal harbour.
Derrick No. 4		April 12..	100	Montreal harbour.
Derrick No. 1		April 12..	100	Montreal harbour.
Derrick No. 6		April 12..	100	Montreal harbour.
Dredge No. 1		April 13..	100	Dipper dredge, Montreal harbour.
Dredge No. 4		April 13..	461	Dipper dredge, Montreal harbour.
Dredge No. 3		April 15..	100	Dipper dredge, Montreal harbour.
Aberdeen	140	April 22..	87	Screw, tug, pass., Montreal harbour.
Dredge No. 2		April 24..	100	Dipper dredge, Montreal harbour.
St. Louis.....		April 24..	34	Screw, tug, Montreal harbour.
Courier.....	25	April 24..	12	Screw, tug, pass., Montreal harbour.
Drill boat		April 29..	100	Drill boat.
Derrick No. 3		April 29..	100	Montreal harbour.
Frank Jackman		May 8..	39	Screw, tug, St. Lawrence river.
Glengarry		Not issued.	732	Screw, freight, rivers and lakes.
Frank Perew.....		May 18..	43	Screw, tug, Lachine canal.
Quebec.....		May 19..	108	Screw, freight, rivers.
Mona		May 19..	25	Screw, tug, rivers.
Grain elevator No.14		June 2..	181	Screw, Montreal harbour.
Grain elevator No.10		June 2..	173	Screw, Montreal harbour.
Grain elevator No. 4.		June 2..	188	Screw, Montreal harbour.
Grain elevator No. 9.		June 3..	172	Screw, Montreal harbour.
Grain elevator No. 1.		June 3..	165	Screw, Montreal harbour.
Grain elevator No.11		June 3..	169	Screw, Montreal harbour.
Grain elevator No. 6.		June 5..	170	Screw, Montreal harbour.
Grain elevator No.17		June 5..	215	Screw, Montreal harbour.
Grain elevator No.15		June 5..	213	Screw, Montreal harbour.
Grain elevator No.18		June 6..	214	Screw, Montreal harbour.
Grain elevator No.12		June 6..	183	Screw, Montreal harbour.
Grain elevator No.16		June 7..	210	Screw, Montreal harbour.
Grain elevator No.13		June 7..	178	Screw, Montreal harbour.
Honore		June 16..	22	Screw, tug, Soulanges canal.
Ida		June 16..	26	Screw, tug, Lachine canal.
Plover		June 19..	40	Screw, tug, Lachine canal.
Grain elevator No. 5.		June 20..	80	Screw, Montreal harbour.
Grain elevator No. 8.		June 20..	80	Screw, Montreal harbour.
Grain elevator No. 2.		June 21..	170	Screw, Montreal harbour.
Grain elevator No. 7.		June 21..	170	Screw, Montreal harbour.
Assistance		Not issued.	100	Derrick, Montreal harbour.
Concrete plant		Not issued.	100	Scow with concrete machinery.
Total			6,064	

LOUIS ARPIN,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

MONTREAL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Norman		Oct. 21..	1,946	155 68	Screw, freight, Montreal and gulf ports
Total			1,946	155 68	

LOUIS ARPIN,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

MONTREAL DIVISION—Concluded.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Beatrice B	59	43	Screw, not in commission.
Hudson	45	37	Stern wheel, not in commission. .
Tit Willow	17	11	Screw, not in commission.
Annie Laurie	3	3	Screw, not in commission.
Little Roxy	12	7	Screw, not in commission.
Carmita	9	8	Screw, not in commission.
Zephyr	3	2	Screw, not in commission.
Madoc	8	7	Warp tug, not in commission.
Monaco	10	6	Screw, not in commission.
Union	75	66	Screw, not in commission.
Massawippi	4	3	Screw, not in commission.
R. Anglin	97	52	Screw, not in commission.
Agnes McMahon	81	47	Screw, not in commission.
St. George	68	29	Screw, not in commission.
Antelope	83	57	Screw, not in commission.
Hector	21	14	Screw, not in commission.
Aid	25	15	Stern wheel, no application.
Nokomis	25	17	Screw, no application.
Coulonge	18	12	Warp tug, no application.
Chummy	5	4	Screw, no application.
St. Louis	29	20	Screw, no application.
Windermere	31	21	Screw, no application.
Agnes	29	20	Screw, no application.
Mildred	15	13	Screw, inspected since.
Leon	15	12	Screw, inspected since.
Filgate	425	237	Paddle, inspected since.
Total	1,212	763	

WM. LAURIE,
LOUIS ARPIN.
Steamboat Inspectors.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

SOREL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
St. Louis.....		July 14..	16.80	Screw, tug, Grande Piles and Lachute.
High Rock.....		July 12..	8.00	Screw, tug, Grande Piles and Lachute.
Florence.....		July 13..	17.77	Screw, tug, Grande Piles and La Tuque
Amy.....		July 1..	39.50	Screw, tug, St. Lawrence river.
Dredge No. 5.....		July 1..		
1904.				
Frank Jackman.....		Dec. 1..	38.90	Screw, tug, rivers.
1905.				
Blanford.....		July 13..	65.36	Paddle, tug, St. Maurice and Three Rivers.
St. Antoine.....		Sept. 9..	14.38	Screw, pass., St. Antoine and St. Hilaire.
1906.				
Rodolphe.....		April 1..	116.00	Paddle, tug, Montreal and Three Rivers.
Shamrock.....		April 30..	236.73	Screw, tug, government buoys service.
Victoria.....	10	April 7..	343.33	Screw, pass., Montreal and St. Johns.
Zephyr.....		Not issued.		Screw, freight, Montreal and Quebec.
Préfontaine.....	70	April 11..	899.37	Twin screw, pass., Montreal and Quebec.
Terrebonne.....	420	April 13..	635.72	Paddle, pass., Montreal and Sorel.
Chambly.....	300	April 13..	535.49	Paddle, pass., Montreal and Chambly.
Tadousac.....	450	April 13..	1,701.13	Paddle, pass., Montreal and Chicoutimi.
Trois Rivières.....	564	April 27..	1,552.05	Paddle, pass., Montreal and Three Rivers.
Lapriarie.....	295	April 14..	599.75	Paddle, pass., Montreal and Laprairie.
Spray.....	40	April 14..	106.56	Screw, pass., Montreal and Quebec.
McNaughton.....		April 14..	137.00	Screw, tug, Montreal and Quebec.
May.....		April 14..	21.00	Screw, tug, Montreal harbour.
Virginia.....		April 14..	146.00	Screw, tug, St. Lawrence river.
Mathilda.....		April 14..	114.00	Screw, tug, St. Lawrence river.
F. Dupré.....		April 14..	114.48	Screw, tug, St. Lawrence river.
Ethel.....		April 14..	71.94	Screw, tug, St. Lawrence river.
Hudson.....	75	April 14..	158.18	Paddle, pass., Montreal and Quebec.
Nithsdale.....	Not regis..	April 18..		Dredge, St. Lawrence river. .
Activity.....		April 18..	21.80	Screw, tug, attending dredge.
Eureka.....		April 20..	163.42	Screw, tug, govt. steamer attending dredge.
James Howden.....	Not regis..	April 19..		Twin screw, govt. steamer attending dredge.
Frontenac.....		April 19..		Screw, tug, govt. steamer attending dredge.
Champlain.....	Not regis..	April 19..		Screw, tug, govt. steamer attending dredge.
Cartier.....	Not regis..	April 19..		Screw, tug, govt. steamer attending dredge.
St. Jean D'Iberville.	Not regis..	April 19..		Screw, tug, govt. steamer attending dredge.
Quebec.....	650	April 25..	2,655.72	Paddle, pass., Montreal and Quebec.
Fred.....		April 20..	24.00	Screw, tug, Montreal harbour.
Rival.....		April 20..	125.00	Paddle, tug, Montreal and Chambly.
W. C. Fransis.....		April 20..	37.98	Screw, tug, Mantreal harbour.
Alberta.....		April 19..	125.48	Twin screw, tug, St. Lawrence river.
Montcalm.....	Not regis..	April 20..		Twin screw, govt. steamer attending dredge.
Emilia.....	Not regis..	April 20..		Screw, tug, govt. steamer attending dredge.
Lucia.....		April 19..	44.00	Screw, tug, Montreal harbour.
Lac St. Pierre.....	Not regis..	April 21..		Twin screw, govt. steamer, attending dredge.
Hamilton.....	335	April 28..	937.87	Paddle, pass., Montreal and Toronto.
Hosanna.....		April 26..	89.41	Screw, tug, Montreal and Quebec.
Luciana.....		April 27..	18.24	Screw, tug, Lachine canal.
Jos. Paul.....		April 27..	19.06	Screw, tug, Montreal and Three Rivers.
Jessie Hume.....	Not regis..	April 27..		Screw, tug, govt. steamer attending dredge.
De Levis.....	Not regis..	April 26..		Twin screw, tug, hydrographic survey.
Sincennes.....		April 19..	228.42	Paddle, tug, St. Lawrence river.
Ingomar.....		Not issued		Screw, yacht, St. Lawrence river.
Alma.....	40	May 3..	42.75	Screw, pass., excursion boat, Sorel.
Florida.....	40	May 13..	210.39	Screw, pass., Montreal and Quebec.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*SOREL DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Duke of York	Not regis..	Nov. 19..	.....	Dredge, St. Lawrence river.
1906.				
Alice.....		April 14..	67.17	Screw, tug, St. Lawrence river.
Beaupré	1,400	May 3..	2,068.09	Paddle, pass., Montreal and Ste. Anne de Beau.
Montreal	625	May 23..	4,282.23	Paddle, pass., Montreal and Quebec.
Fire Fly	184	May 23..	214.41	Paddle, pass., Sorel and Berthier.
Pierreville.....	No	certificate of registry		Paddle, Sorel and Louiseville.
St. Irénée	366	July 28..	2,158.48	Screw, pass., Montreal and Chicoutimi.
Marie Louise	10	June 29..	5.66	Screw, pass., Shawinigan and Almaville.
Samson	40	June 30..	119.37	Screw, pass., Grande Piles and La Tuque.
Ivan R.....	40	June 30..	66.44	Screw, pass., Grande Piles and La Tuque.
St. Maurice	40	June 30..	44.72	Screw, pass., Grande Piles and La Tuque.
Dream	40	June 29..	27.44	Screw, pass., Grande Piles and La Tuque.
Aurore	Not regis..	Not issued.	.....	Screw, yacht, St. Maurice river.
Mousette	Not regis..	Not issued.	.....	Screw, yacht, St. Lawrence river.
Prescott	217	May 27..	1,107.00	Paddle, pass., Montreal and Prescott.
Berthier	530	April 29..	933.77	Paddle, pass., Montreal and Berthier.
Beatrice		July 4..	39.62	Paddle, tug, St. Maurice river.
Blandford		July 4..	65.36	Paddle, tug, St. Lawrence river.
Dredge No. 5	Not regis..	July 4..	.....	Three Rivers.
Montmorency		July 4..	12.18	Paddle, tug, attending dredge.
Amy		July 4..	39.50	Paddle, tug, attending dredge.
Mabel McDonald		July 5..	41.81	Screw, tug, attending dredge.
Arthur		July 25..	78.02	Paddle, tug, Montreal and Three Rivers.
Chicoutimi	290	May 12..	991.90	Paddle, pass., Montreal and Chicoutimi.
Maud		May 17..	54.00	Screw, tug, attending dredge.
Bourgeois	40	July 4..	94.34	Paddle, pass., Batiscan and Sorel.
Glacial	40	July 4..	109.00	Screw, pass., Three Rivers and Ste. Angèle.
Cornwall	325	April 29..	904.02	Paddle, pass., Quebec and Hamilton.
Botrel	Not regis..	Not issued.	.....	Screw, yacht, Three Rivers.
Alphonse Racine	125	April 25..	121.18	Screw, pass., Montreal harbour.
Dredge St. Pierre... .	Not regis..	Not issued.	St. Lawrence river.
Total			26,069.69	

A. RONDEAU,
Steamboat Inspector.

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STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

SOREL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Brockville		Not issued.	884.38		Twin screw, Montreal and Prescott.
Murray Bay	425	April 28..	968.70		Pad., pass., Montreal and Chicoutimi
Total			1,853.08		

A. RONDEAU,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

SOREL DIVISION—Concluded.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
St. Roch.	18	8	Screw, tug, inspected since.
Mary A. Laughlin	23	12	Screw, tug, inspected since.
Wm. Davis.	40	27	Screw, tug, inspected since.
St. Lawrence.		125	Dredge, inspected since.
Varembes	362	228	Paddle, passenger, inspected since.
Carmelia	63	39	Screw, tug, no application.
Daisy	15	10	Screw, tug, no application.
Hercule			Screw, tug, registration not complete.
St. Louis.	17	11	Screw, tug, not running.
Total	538	460	

A. RONDEAU,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

QUEBEC DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Wobun.....		July 7..	1,551	Screw, freight, Montreal and Sydney.
Polaris.....	450	July 21..	553	Screw, pass., ferry Quebec and Levis.
Galbert.....	Not regis.			Paddle, tug, Lac des Commissairis.
Marie Alma.....	10	July 27..	52	T. screw, pass., Roberval and Mistassini...
Roberval.....	40	July 27..	126	Paddle, pass., Roberval and Peribonca.
Arthur.....		July 27..	15	Screw, tug, St. Jerome.
Marie Louise.....	10	July 27..	9 9	Paddle, pass., Saguenay river.
Mistassini.....	40	July 28..	249	Paddle, pass., Roberval and Grande Decharge
Le Colon.....	40	July 27..	173	Paddle, pass., Roberval and Peribonca.
Peribonca.....		July 27..	56	Paddle, tug, Roberval and Peribonca.
P. C. Savard.....		July 29..		Spoon drerge, Lake St. John.
St. Henri.....		July 27..	101	Twin screw, tug, Lake St. John.
Honfleur.....	10	July 29..	19	Screw, pass. St. Jerome.
Alcyon.....	40	July 25..	44	T. screw, ferry, Chicoutimi and St. Anne.
Forest.....		July 25..	26	Screw, tug, Saguenay river.
Little Emely.....	10	July 30..	6	Screw, pass., ferry, St. Alphonse and Mill.
Marie Louise.....				Screw, Gov. boat, attending dredge, L. St, John.
Campania.....		Aug. 10..	23	Screw, tug, Lake Megantic.
Jubilee.....	30	Aug. 10..	25	Screw, pass., Megantic and Wobun.
Maccanamac.....		Aug. 10..	4	Screw, pleasure yacht, Spider L.
White Wing.....		Not regis.		Screw, tug, Lake St. Francois.
Dot.....			10	Screw, tug, Lake St. Francois.
Honhedore.....		Aug. 12..	10	Screw, tug, Lake St. Francois.
L'Ami.....		Aug. 12..	16	Screw, tug, Lake Aylmer.
Little H.....	Not issued	Aug. 16..	19	Screw, tug, Riviere du Loup wharf to ship.
Fraserville.....		Not regis.		Screw, tug, Riviere du Loup wharf to ship.
Frank C. Batt.....			33	Screw, tug, Sandy Beach.
Petit George.....		Not regis.		Screw, tug, Salmon Lake.
Oak bay.....		Aug. 19..	27	Paddle, tug, Restigouche river.
Bella.....	40	Aug. 19..	43	Paddle, pass., Campbellton and Cross Point.
Christiana.....		Aug. 19..	57	Paddle, tug, Restigouche river.
Nellie H.....	10	Aug. 20..	8	Screw, pass., ferry, Gaspé bay.
C. L. C.....		Not regis.		Screw, tug, towing scow, Barachois to vessels.
Fearless.....		Aug. 24..	10	Screw, towing, Pabos whf. to ship n stream.
Maggie Allard.....		Aug. 26..		Screw, tug, Bonaventure river.
Nelson.....		Sept. 9..	33	Screw, towing from Grande Vallee whf. to stream.
Shirley.....		Sept. 12..	37	Screw, towing, Grande Vallee whf. to St. Anne.
Victoria.....		Sept. 14..	48	Screw, towing from St. Anne to Matane.
Dama.....	10	Sept. 24..	55	Screw, pass. and tug, Escoumain & Tadousac.
Muriel.....	10	Sept. 26..	54	Screw, pass. & tug, Tadousac & St. Catherines.
Kenogami.....		Sept. 26..	21	Screw, tug, Saguenay river.
Manicouagan.....		Oct. 26..	28	Screw, tug, Manicouagan and stream.
Queen.....	450	Oct. 8..	367	Screw, pass., ferry, Quebec and Levis.
1906				
Rhoda.....	50	April 4..	182	Paddle, pass., mail tender, Rimouski.
Gaspesian.....	100	April 11..	490	Screw, pass., Montreal and Gaspé.
Polino.....	10	April 12..	807	Screw, pass., Montreal and Newfoundland.
Campana.....	300	April 12..	1697	Twin screw, pass., Montreal and Pictou.
Contest.....	55	April 12..	274	Paddle, pass., Quebec & quarantine station.
Champion.....	450	April 14..	482	Paddle, pass., Quebec and Berthier.
Orleans.....	490	April 14..	269	Screw, pass., Que. & Island of Orleans.
Restigouche.....	120	April 15..	945	Screw, pass., Montreal and St. John, Nfd.
South.....	450	April 18..	349	Paddle, pass., ferry, Quebec and Levis.
North.....	450	April 18..	289	Paddle, pass., ferry Que. & Levis.
Shirley.....		April 22..	37	Screw, towing, River St. Anne to stream.
Frontenac.....	195	April 26..	304	Twin screw, pass., Quebec to St. Romuald.
Marie Josephine.....		April 28..	117	Screw, wrecking purposes in Gulf.
J. H. Hacket.....	14	May 1..	117	Screw, pass. and tug, Quebec & Pencost river
Belle.....	40	May 2..	82	Screw, pass. and tug, Quebec harbour.

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

QUEBEC DIVISION—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Spray.....	15	May 3..	21	Screw, pass. and tug, Quebec harbour.
M. E. Hacket.....	9	May. 3..	78	Screw, pass. and tug, Quebec harbour.
Ripple.....		May 5..	13	Screw, tug, Quebec harbour.
Hope.....		May 8..	19	Screw, tug, Quebec harbour.
Foam.....		May 6..	16	Screw, tug, Quebec harbour.
St. Croix.....	550	May 9..	506	Paddle, pass., St. Anne and St. Croix.
Lord Strathcona.....		May 5..	495	Twin screw, wrecking tug.
Florence.....		May 12..	133	Screw, freight, Quebec and Gulf.
Etoile.....	592	May 30..	560	Paddle, pass., Quebec and Montreal.
C. S. Parnell.....		May 16..	17	Screw, tug, Quebec harbour.
Montmorency.....		May 15..	28	Screw, Pub. Works Dept., Que. & quarantine.
W. Hacket.....		May 14..	156	Screw, tug, Escoumains and Sorel.
Victor.....		June 6..	35	Screw, tug, Quebec and Montreal.
Toronto.....		June 15..	28	Screw, pleasure yacht
Yvonne.....		Not regis.		Screw, pleasure yacht.
Arizona.....	10	June 26..	9	Screw, pass., Lake St. Joseph.
Ontaritze.....		June 26..	18	Screw, tug, Lake St. Joseph.
Rousseau.....		June 27..		Screw, yacht, Lake St. Joseph.
St. Louis.....	190	June 29..	428	Paddle, pass., Quebec and Montreal.
Monitor.....		June 29..	32	Screw, Govt. tug, attending dredge.
Diver.....		June 13..	86	Screw, wrecking schooner.
Grace.....	10	June 26..	4	Screw, pass., Lake Edward.
Swallow.....		June 26..	9	Screw, tug, Lake, Edward
Harold.....		June 27..	7	Screw, tug, Lake Kiskisink.
Jack.....		June 19..	31	Screw, tug.
St. Charles.....		June 21..	23	Screw, tug, Quebec harbour.
Corine.....		Jnue 21..	22	Screw, tug, Quebec harbour.
Fabiola.....		June 15..	81	Screw, wrecking steam schooner.
Amanda.....		June 30..	11	Screw, tug, Quebec harbour.
Dusault & Lemieux.....		June 14..		Suction dredge, Quebec harbour.
Total.....			13,527	

JOS. SAMSON,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

QUEBEC DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Saphir.....		July 1..	1,379	110 32	Screw, frt., Montreal and Sydney.
King Edward.....	146	April 1..	355	.....	Screw, pass., Montreal and Sydney.
Savoy.....	100	May 22..	348	27 84	Screw, pass., Montreal and Sydney.
Total			2,082	158 16	

JOS. SAMSON,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

QUEBEC DIVISION—Concluded.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Stord.....	648	372	Screw, pass., no application.
Alpha.....	61	42	Screw, pass., no application.
Orion.....	846	497	Screw, freight, not running.
Kathleen.....	280	177	Paddle, pass., not running.
Atlantic.....	505	283	Twin screw, pass., unfit for running.
Total.....	2,340	1,371	

JOS. SAMSON,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

QUEBEC AND MONTREAL DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Wobun.....		July 7..	1,551	Screw, freight, Montreal and foreign ports.
Surveyor.....	40	July 12..	50	Screw, pass., Montreal and Caughnawaga.
P. P. Flower.....	25	July 12..	15	Screw, pass., Bout Lils and Charlemagne.
Pocahontas.....	10	July 13..	56	Screw, pass., Lake Massamipi.
Alma.....		Not issued.		Not registered.
Lady of the Lake...	680	July 14..	607	Paddle, pass., Newport and Magog.
Arizona.....	10	July 18..	9	Screw, pass., Lake St. Joseph.
Grace.....		Not issued.		Not registered.
Alcyon.....	40	July 25..	44	Screw, pass., Chicoutimi and Ste. Anne.
Roberval.....	40	July 26..	126	Paddle, pass., Roberval and Peribonca.
Marie Alma.....	10	July 26..	52	Twin screw, pass., Roberval and Mistassini.
Mistassini.....	40	July 27..	235	Paddle, pass., Roberval and Grande Décharge.
Le Colon.....	40	July 27..	173	Paddle, pass., Lake St. Joseph.
Nord.....	10	July 27..	56	Twin screw, pass., Roberval and Peribonca.
Honfleur.....	10	July 29..	19	Screw, pass., St. Henri and St. Jérôme.
Marie Louise.....	10	July 30..	99	Paddle, pass., Saguenay river.
Little Emely.....	10	July 30..	6	Screw, pass., St. Alphonse bay.
Nellie H.....	10	Aug. 7..	8	Screw, pass., Gaspé bay.
Bella.....	40	Aug. 9..	43	Paddle, pass., Campbellton and Cross point.
Bout de L'Ile.....	10	Aug. 17..	15	Paddle, pass., Bout de L'Ile and Charlemagne.
Ingomar.....		Not issued.		Screw.
Argo.....	40	Aug. 18..	95	Screw, pass., Turtle portage and Burch creek.
Alice.....	40	Aug. 18..	26	Screw, pass., Kippewa lake.
R. Hurdman.....	40	Aug. 18..	93	Screw, pass., Kippewa.
Jubilee.....	40	Aug. 21..	117	Screw, pass., Temiskaming and N. Temiskaming.
Clyde.....	35	Aug. 21..	29	Screw, pass., New Liskeard and White river.
Villemarie.....	10	Aug. 22..	32	Screw, pass., Lake Temiskaming.
Meteor.....	240	Aug. 22..	299	Screw, pass., Temiskaming and N. Temiskaming.
Blanche.....		Not issued.		Register not completed.
Geisha.....	25	Aug. 23..	20	Screw, pass., New Liskeard and Tomstown.
Swan.....	25	Aug. 23..	12	Screw, pass., New Liskeard and White river.
Temiskaming.....	40	Aug. 25..	295	Screw, pass., Temiskaming and N. Temiskaming.
Princess.....	200	Aug. 26..	527	Paddle, pass., Montreal and Carillon.
White Wing.....		Not issued.		Screw, not registered.
St. Antoine.....	10	Sept. 10..	14	Screw, pass., Belœil and St. Antoine.
Missisquoi.....	260	Sept. 10..	160	Screw, pass., Montreal and Burlington.
Dama.....	10	Sept. 26..	46	Screw, pass., Les Escoumains and Trois Pistoles.
Muriel.....	10	Sept. 28..	54	Screw, pass., St. Catherine and Tadousac.
Pilot.....	450	Oct. 14..	427	Screw, ferry, Quebec and Levis.
Queen.....	450	Oct. 14..	367	Screw, ferry, Quebec and Levis.
Polaris.....	450	Oct. 15..	533	Screw, ferry, Quebec and Levis.
1906.				
Polino.....	10	April 12..	807	Screw, pass., Montreal and St. John, N'fld.
Campana.....	300	April 12..	1,697	Twin screw, pass., Montreal and Pictou.
Gaspesian.....	100	April 14..	490	Screw, pass., Montreal and Sydney.
Rhoda.....	50	April 13..	182	Paddle, pass., mail tender, Rimouski.
Contest.....	55	April 15..	274	Paddle, pass., Quebec and Grosse Ile.
Frontenac.....	195	April 18..	304	Twin screw, pass., Quebec and St. Romuald.
Champion.....	110	April 18..	482	Paddle, pass., Quebec and Berthier.
Orleans.....	490	April 19..	269	Screw, pass., Quebec and Orleans island.
Restigouche.....	120	April 22..	945	Screw, pass., Montreal and St. John, N'fld.
Quebec.....	650	April 25..	2,656	Paddle, pass., Montreal and Quebec.
Tadousac.....	450	April 25..	1,701	Paddle, pass., Montreal and Chicoutimi.
Hudson.....	75	April 25..	158	Paddle, pass., Montreal and Quebec.
Spray.....	40	April 25..	107	Screw, pass., Montreal and Quebec.
Alphonse Racine.....	125	April 25..	121	Screw, pass., Montreal harbour.
Fire Fly.....	180	April 25..	85	Paddle, pass., Sorel and Berthier.
Laprairie.....	330	April 26..	600	Paddle, pass., Montreal and Laprairie.
Terrebonne.....	450	April 26..	316	Paddle, pass., Montreal and Sorel.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*QUEBEC AND MONTREAL DIVISION—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Longueil.	300	April 26..	365	Paddle, pass., Montreal and Longueil.
Boucherville.	600	April 27..	419	Paddle, pass., Hochelaga and Boucherville.
Chambly.	300	April 27..	535	Paddle, pass., Montreal and Chambly.
1905.				
Jubilee.	30	Sept. 7..	25	Screw, pass., Megantic and Wobun.
St. Laurent.	280	April 27..	546	Paddle, pass., Montreal and Berthier.
Trois Rivières.	564	April 27..	1,552	Paddle, pass., Montreal and Three Rivers.
North.	450	April 28..	289	Paddle, pass., ferry, Quebec and Levis.
South.	450	April 28..	349	Paddle, pass., ferry, Quebec and Levis.
J. H. Hacket.	14	May 1..	117	Screw, pass., Quebec and Pentecost.
M. E. Hacket.	9	May 1..	78	Screw, pass., Quebec harbour.
Belle.	40	May 2..	82	Screw, pass., Quebec harbour.
Spray.	15	May 2..	21	Screw, pass., Quebec harbour.
Ste. Croix.	550	May 9..	506	Paddle, pass., Ste. Anne and Ste. Croix.
Préfontaine.	70	May 13..	899	Twin screw, pass., Montreal and Quebec.
Victoria.	10	May 14..	343	Screw, pass., Montreal and St. John, P.Q.
Mansfield.	15	May 15..	169	Screw, pass., Ottawa.
Empress.	800	May 15..	678	Paddle, pass., Ottawa and Grenville.
Victoria.	243	May 15..	181	Screw, pass., Ottawa and Grenville.
G. B. Greene.	600	May 15..	255	Paddle, pass., Aylmer and Dechenes lake.
Alert.		May 15..	50	Screw, survey boat, Georgian bay.
Pontiac.	40	May 16..	116	Paddle, pass., Chats lake.
Victoria.	400	May 17..	188	Paddle, pass., Pembroke and Des Joachims.
D. B. Mulligan.	25	May 17..	77	Screw, pass., Pembroke and Calumet island.
Mahigama.	40	May 17..	20	Screw, pass., Pembroke and Fort Wililam.
May Flower.	40	May 18..	59	Stern wheel, pass., Barry's bay and Combermere.
Tiger.	10	May 18..	4	Screw, pass., Barry's bay and Overgale.
Welshman.	25	May 19..	156	Screw, pass., Ottawa and Montreal.
Hall.	50	May 19..	247	Screw, pass., Ottawa and Montreal.
Glyde.	25	May 20..	80	Screw, pass., Calumet and Hawkesbury.
H. Bonenfant.	10	May 20..	31	Twin screw, pass., Calumet and L'Orignal.
Bonito.	10	May 20..	17	Screw, pass., Calumet and L'Orignal.
Leo.	20	May 20..	2	Screw, pass., Hawkesbury and Grenville.
St. Peter.	45	May 21..	44	Screw, pass., Montreal harbour.
Aberdeen.	140	May 21..	87	Screw, pass., Montreal harbour.
Robert MacKay.	96	May 21..	129	Screw, pass., Montreal harbour.
Courier.	25	May 21..	12	Screw, pass., Montreal harbour.
Berthier.	530	May 22..	934	Screw, pass., Montreal and Grand Nord.
Salaberry.	40	May 22..	222	Screw, pass., Montreal and Valleyfield.
Hamilton.	335	May 22..	938	Paddle, pass., Montreal and Toronto.
Duchess of York.	428	May 22..	490	Paddle, pass., Montreal and Carillon.
Cornwall.	325	May 23..	914	Paddle, pass., Quebec and Hamilton.
Princess.	163	May 23..	229	Paddle, pass., Montreal and Carillon.
Sorel.	40	May 23..	158	Paddle, pass., Batiscau and Sorel.
Ralph T. Halcomb.		May 23..	375	Paddle, freight, lakes and rivers.
Alma.	40	May 24..	43	Paddle, pass., excursion boat, Sorel.
Beaupré.	800	May 24..	2,068	Paddle, pass., Montreal & Ste. Anne de Beaupré.
Prescott.	350	May 24..	1,107	Paddle, pass., Montreal and Prescott.
Montreal.	625	May 26..	4,282	Paddle, pass., Montreal and Quebec.
Arminia.		May 27..	467	Paddle, freight, Saguenay R. and L. Ontario.
Etoile.	592	May 30..	560	Paddle, pass., Quebec and Montreal.
Glengarry.		June 8..	732	Paddle, freight, Quebec and upper lake.
Florida.	40	June 10..	201	Twin screw, pass., Quebec and Montreal.
Valleyfield.	450	June 10..	407	Twin screw, pass., ferry, Mont. & St. Helen's isl'd
Sovereign.	700	June 10..	636	Paddle, pass., Montreal and Carillon.
John.	13	June 10..	34	Paddle, pass., Pt. Fortune and Carillon.
Chaffey.	40	June 11..	40	Screw, pass., Valleyfield and Lancaster.
St. Louis.	199	June 12..	128	Paddle, pass., Quebec and Montreal.
Chateauguay.	440	June 12..	222	Paddle, pass., Montreal and Chateauguay.

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

QUEBEC AND MONTREAL DIVISION—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1905.		
Sparrow	40	June 13..	38	Screw, pass., L. Nipissing and tributaries.
Van Woodland	100	June 13..	37	Screw, pass., L. Nipissing and tributaries.
Booth	40	June 14..	347	Paddle, pass., L. Nipissing and tributaries.
Hazel B.	125	June 14..	27	Screw, pass., North Bay and French river.
Elgin L. Lewis	140	June 15..	50	Screw, pass., L. Nipissing and tributaries.
Northern Belle	260	June 15..	222	Screw, pass., Sturgeon Falls and L. Nipissing.
Catherine C.	7	June 15..	19	Screw, pass., Sturgeon Falls and river.
Dorothy	10	June 16..	12	Screw, pass., Sturgeon Falls and river.
Verva	40	June 17..	55	Screw, pass., Wahnapiatae lake.
Wanda	30	June 20..	39	Screw, pass., Lake Temagami.
Chance	10	June 20..	5	Screw, pass., Lake Temagami.
Ingomar		Not issued.		Certificate of register not complete.
Ida	40	June 22..	247	Screw, pass., Montreal and Ottawa.
Maude	30	June 22..	269	Screw, pass., Montreal and Ottawa.
Scotsman	22	June 22..	265	Screw, pass., Montreal and Ottawa.
Riviere du Loup	40	June 26..	199	Paddle, pass., St. Catherine and Verdun.
Bout de Lils	10	June 26..	15	Paddle, pass., Bout de Lils and Charlemagne.
Elsie		Not issued.		Not registered.
Lady of the Lake	680	June 27..	607	Paddle, pass., Newport and Magog.
Alma	10	June 27..	6	Screw, pass., Cedarville and Magog.
Pocahontas	97	June 28..	56	Screw, pass., Lake Massawippi.
Ottawan	100	June 28..	311	Screw, pass., Montreal and Ottawa.
Glacial	40	June 29..	109	Screw, pass., Three Rivers and Ste. Angele.
Bourjois	40	June 29..	94	Paddle, pass., not in commission.
Marie Louise	10	June 29..	6	Screw, pass., Shawinigan and Almaville.
St. Maurice	40	June 30..	45	Screw, pass., Grandes Piles and La Tuque.
Dream	40	June 30..	27	Screw, pass., Grandes Piles and La Tuque.
Samson	40	June 30..	119	Screw, pass., Grandes Piles and La Tuque.
Ivan R.	40	June 30..	66	Screw, pass., Grandes Piles and La Tuque.

PHILIPPE DUCLOS,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

QUEBEC AND MONTREAL DIVISION—Concluded.

HULL INSPECTION—Concluded.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Saphir		July 1..	1,379	110 32	Screw, freight, Montreal & Maritime ports.
		1906.			
King Edward	146	April 11..	355	.....	Screw, pass., Montreal and Sydney.
Savoy	100	April 15..	348	27 84	Screw, pass., Montreal and Sydney.
Murray Bay	425	April 28..	969	.....	Paddle, pass., Mont. & Chicoutimi.
Sverre		May 22..	3,565	.....	Screw, freight, Montreal and Sydney.
Hermod		May 24..	2,984	.....	Screw, freight, Montreal and Sydney.
Snel		May 31..	1,320	.....	Screw, freight, Montreal and Sydney.
Havso		June 1..	1,921	.....	Screw, freight, Montreal and Sydney.
Agnar		June 2..	1,567	.....	Screw, freight, Montreal and Sydney.
Harald		June 3..	2,988	.....	Screw, freight, Montreal and Sydney.
Brockville	500	Not issued.	884	.....	Paddle, pass., Montreal & Toronto.

PHILIPPE DUCLOS,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1905.					
Alexandra		July	2..	33.67	Yacht, Halifax harbour.
Ulala		July	2..	13.70	Yacht, Halifax harbour.
Gambrinus		July	5..	28.36	Lighter, Halifax harbour.
Lenore		July	5..	15.23	Screw, fishing, coasting.
Ethel Jean		July	12..	47.06	Screw, tug, fishing, coasting.
Albion		July	15..	9.14	Screw, tug, coasting.
Aid		July	22..	98.55	Screw, tug, coasting.
I. B. Hamblin		July	23..	31.71	Screw, freight, coasting.
Commodore		July	25..	12.84	Screw, lighter, Halifax harbour.
Highland Mary		Aug.	1..	73.73	Screw, lighter, coasting.
Robbie Burns		Aug.	1..	88.95	Screw, lighter, Halifax harbour.
Help		Aug.	6..	146.14	Screw, freight, coasting.
Liberty		Aug.	6..	96.21	Screw, freight, coasting.
Malcolm Cann	100	Aug.	9..	211.81	Screw, pass., coasting.
Vulcan		Aug.	9..	18.40	Screw, tug, coasting.
Meadow Flower		Aug.	9..	6.56	Screw, water boat, Canso harbour.
Shannon		Aug.	9..	75.11	Screw, tug, coasting.
Hiawatha	40	May	2..	49.19	Screw, pass., Pictou harbour.
Gipsy		Aug.	12..	16.70	Screw, tug, coasting.
Wasis		Aug.	12..	480.47	Screw, freight, Canadian and foreign.
Strathcona	100	Aug.	18..	284.09	Screw, pass. and freight, Halifax and coasting.
Bruce		Aug.	18..	55.70	Screw, lighter, Halifax harbour.
Water Witch		Aug.	19..	90.38	Screw, water boat, Halifax harbour.
Bessie & Harry		Aug.	19..	22.49	Screw, water boat, Halifax harbour.
Victoria		Sept.	6..	67.65	Screw, tug, coasting.
Star	15	Sept.	5..	6.07	Screw, pass., Wallace harbour.
Collector		Sept.	2..	52.02	Screw, lighter, Halifax harbour.
Havana		Sept.	21..	470.98	Screw, freight, Canadian and foreign.
Baines Hawkins		Sept.	24..	703.28	Screw, freight, Canadian and foreign.
Annie		Sept.	30..	42.12	Screw, water boat, Halifax harbour.
Salvor		Oct.	1..	44.93	Screw, lighter, Halifax harbour.
Togo		Oct.	6..	97.31	Screw, tug, pass., Halifax and coasting.
Isaac N. Veasey		Oct.	15..	88.96	Screw, fishing, coasting.
Freddie V		Oct.	19..	26.69	Screw, tug, coasting.
Westport 111	150	Aug.	26..	140.01	Screw, pass., coasting.
Yarmouth	450	Oct.	20..	1,451.92	Screw, pass., freight, Canadian and foreign.
Wilfred C	60	Oct.	28..	99.26	Screw, pass., freight, coasting.
Anticosti		Sept.	3..	19.00	Screw, fishing, Halifax and coasting.
Ralph E. S.		Oct.	10..	27.82	Screw, fishing, Halifax and coasting.
Bridgewater	225	Oct.	27..	207.79	Screw, pass., freight, Halifax and coasting.
Mahone	39	Nov.	17..	126.70	Screw, pass., freight, Halifax and coasting.
Halifax	250	Nov.	16..	338.42	Paddle, ferry, Halifax harbour.
Florence C.		Nov.	30..	38.98	Screw, freight, Halifax and coasting.
La Have		Nov.	13..	49.27	Screw, tug, coasting.
Clare		Dec.	16..	88.02	Screw, freight, coasting.
1906.					
Defiance		Feb.	17..	37.79	Screw, tug, coasting.
Victor		Mar.	23..	26.86	Screw, freight coasting.
Mable K		Mar.	29..	15.20	Screw, fishing, coasting.
Harlaw	60	Mar.	31..	451.36	Screw, pass., freight, Halifax and coasting.
Pioneer		April	3..	15.27	Screw, fishing and coasting.
Anita		April	4..	26.50	Screw, freight, coasting.
Dufferin	100	April	7..	210.57	Screw, pass., freight, Halifax and coasting.
John L. Cann	125	April	7..	165.55	Screw, pass., freight, Yarmouth and coasting.
Prince Albert	160	April	7..	126.73	Screw, pass., freight, Yarmouth and coasting.
Louisburg		April	12..	1,815.60	Screw, pass., freight, Canadian and foreign.
Diamond		April	21..	22.65	Screw, tug, Pictou and coast.
Lunenburg	200	April	21..	265.55	Screw, pass., freight, Halifax and coast.
F. W. Roebling	35	April	24..	161.98	Screw, tug, pass., Halifax and coast.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*NOVA SCOTIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Dartmouth	600	April 24..	311.25	Paddle, ferry, Halifax harbour.
Halifax	500	April 20..	1,778.88	Screw, pass., freight, Canadian and foreign.
Bonavista	50	April 20..	1,306.33	Screw, pass., freight, Canadian and foreign.
City of Ghent	60	April 17..	198.64	Screw, pass., freight, Halifax and coast.
Inverness.....	40	April 28..	66.98	Screw, pass., freight, Halifax and coast.
Pawnee	450	May 1..	106.80	Screw, pass., Sydney and Bras d'Or lakes.
Cacouna.....		April 1..	1,450.78	Screw, freight, Canadian and foreign.
Cape Breton.....		May 1..	1,764.19	Screw, freight, Canadian and foreign.
Richmond		May 1..	162.30	Screw, pass., Mulgrave and Sydney.
Peerless.....	300	May 2..	94.27	Screw, pass., Sydney and North Sydney.
C. M. Winch		May 2..	87.72	Screw, tug, Sydney and coast.
Weymouth	100	May 3..	153.93	Screw, pass., North Sydney and coast.
Gladiator		May 3..	70.40	Screw, tug, North Sydney and coast.
Iona	23	May 3..	54.27	Screw, pass., tug, Sydney and coast.
W.M. Weatherspoon		May 3..	59.29	Screw, tug, North Sydney and coast.
Merrimac	22	May 4..	85.80	Screw, tug, pass., Sydney and coast.
Fairy		May 4..	16.06	Screw, water boat, Sydney harbour.
Dolphin		May 9..	8.07	Screw, fishing, Yarmouth and coast.
Nereid		May 10..	12.24	Screw, fishing, Yarmouth and coast.
La Tour	60	May 11..	154.43	Screw, pass., Yarmouth and coast.
Wanda	60	May 11..	38.48	Screw, tug, Yarmouth and coast.
Gertrude M.	35	May 11..	47.58	Screw, pass., Yarmouth and coast.
Edna R.		May 11..	49.66	Screw, tug, Yarmouth and coast.
Alpha		May 16..	61.20	Screw, freight, Halifax and coast.
Coban	24	April 17..	1,063.30	Screw, pass., freight, Canadian and foreign.
Douglas H. Thomas	18	May 15..	211.91	Screw, pass., freight, Sydney and coast.
Pekin		May 16..	84.91	Screw, freight, Halifax and coast.
Amphitrite		May 16..	149.45	Screw, freight, Halifax and coast.
Mikado	17	May 12..	43.94	Screw, pass., freight, Halifax harbour.
Hiawatha	40	May 18..	49.19	Screw, pass., Pictou and Pictou Landing.
May Queen.....	25	May 18..	35.92	Screw, pass., Pictou harbour.
Mary Jean		May 18..	25.86	Screw, freight, Pictou and coasting.
Arcadia	35	May 18..	61.64	Screw, pass., Pictou and coasting.
A. C. Whitney	40	June 1..	62.67	Screw, pass., tug, Halifax harbour.
J. L. Nelson	20	June 1..	37.84	Screw, pass., Halifax and coast.
Olive	40	April 4..	35.49	Screw, pass., Canso and vicinity.
Boston	550	June 6..	1,694.50	Screw, tug, pass., freight, Canadian and foreign.
Alice Maude		June 7..	44.84	Screw, tug, Yarmouth and coast.
Loretta		June 7..	12.02	Screw, fishing, Yarmouth and coast.
Yankee		June 7..	7.31	Screw, fishing, Yarmouth and coast.
Markland.....	40	June 7..	21.92	Screw, pass., Yarmouth and Cape Forchu.
Marina		June 7..	32.46	Screw, tug, Yarmouth and coast.
Island Gem		June 7..	15.62	Screw, fishing, Yarmouth and coast.
Juno	40	June 7..	9.29	Screw, pass., Yarmouth and Bay View.
Centreville.....		June 8..	59.71	Screw, freight, Weymouth and coast.
Ida Lue	68	June 8..	44.51	Screw, pass., Weymouth and coast.
Chester		June 9..	79.50	Screw, tug, Windsor and coast.
Evangeline	150	June 10..	69.18	Screw, pass., Avon river and Bay of Fundy.
Parrsboro		June 10..	56.55	Screw, tug, Windsor and coast.
Falmouth		June 9..	43.03	Screw, tug, Avon river and coast.
Avon	100	June 9..	64.66	Screw, pass., Avon river and Parrsboro.
Millie K.		June 9..	19.85	Screw, tug, Windsor and coast.
Susie		June 10..	26.83	Screw, tug, Windsor and coast.
Richard		June 12..	465.60	Screw, freight, Halifax and coast.
Elsie		June 14..	22.14	Screw, tug, Halifax and coast.
Mascotte	40	June 23..	35.40	Screw, pass., Lunenburg and south shore.
Maggie	40	June 23..	19.26	Screw, pass., Liverpool and south shore ports.
Trusty	150	June 23..	57.60	Screw, pass., Bridgewater and south shore ports.
Mersey	20	June 24..	41.62	Screw, pass., Mersey river and adjacent ports.
Cygnnet		June 24..	11.23	Screw, fishing, Liverpool and coasting.
Dawson		June 27..	37.25	Screw, fishing, Lockport and coast.

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

NOVA SCOTIA DIVISION—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Oneita		June 27..	14.96	Screw, pass., fishing, Lockport and coast.
Yuba	25	June 28..	12.04	Screw, pass., Barrington and Cape island.
Coastguard		June 28..	72.23	Screw, freight, Clark's harbour and coast.
Glencoe	40	June 29..	32.21	Screw, pass., Annapolis and Granville.
Pastime	175	June 30..	67.71	Screw, pass., lighter, Halifax harbour.
Total			22727.71	

J. P. ESDAILE,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

NOVA SCOTIA DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Dahome	60	Aug. 5..	2,469.74	197 60	Screw, pass., freight, Can. & foreign.
Ocamo	75	Aug. 19..	1,826.54	146 16	Screw, pass., freight, Can. & foreign.
Pro Patria	60	Aug. 14..	759.01	60 72	Screw, pass., freight, Can. & foreign.
Oruro	150	Sept. 15..	1,919.07	153 52	Screw, pass., freight, Can. & foreign.
Beta	75	Sept. 10..	1,086.67	86 96	Screw, pass., freight, Can. & foreign.
		1906.			
Baker	60	Jan. 9..	1,930.00	154 40	Screw, pass., freight, Can. & foreign.
		1905.			
Orinoco.....	140	Aug. 8..	2,486.49	198 88	Screw, pass., freight, Can. & foreign.
		1906.			
Dominion.....		Feb. 25..	4,021.17		Screw, freight, Canadian & foreign.
Turret Bell.....		Mar. 20..	2,211.47		Screw, freight, Canadian & foreign.
Amelia	230	April 6..	356.54	28 56	Screw, pass., freight, Can. & foreign.
Britannic		April 11..	2,302.45		Screw, freight, Canadian & foreign.
Mystic.....		April 19..	3,793.50		Screw, freight, Canadian & foreign.
Unique.....		April 24..	2,036.89		Screw, freight, Canadian & foreign.
Catalone		April 24..	3,788.37		Screw, freight, Canadian & foreign.
Turbin		May 4..	749.21		Screw, freight, Canadian & foreign.
Prince George.....	600	May 9..	2,040.14	163 20	Screw, pass., freight, Can. & foreign.
Prince Rupert	850	May 9..	1,158.44	92 64	Paddle, pass., freight, coasting.
Prince Arthur	600	May 9..	2,041.44	163 28	Pad., pass., freight, Can. & foreign.
Silvia	136	May 13..	1,707.70	136 64	Pad., pass., freight, Can. & foreign.
Scottish Hero		May 13..	2,201.56		Pad., pass., freight, Can. & foreign.
Universe		May 17..	2,535.51		Pad., pass., freight, Can. & foreign.
Chebucto	400	May 20..	578.48	46 24	Paddle, ferry, Halifax harbour.
Rosalind	160	June 2..	2,567.70	205 44	Screw, pass., freight, Can. & foreign.
Total			46,568.09	1,834 24	

J. P. ESDAILE,
Steamboat Inspector.

5-6 EDWARD VII., A. 1906

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

NOVA SCOTIA DIVISION—Continued.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Gem	4.69	2.12	Laid up, fishing boat.
Jessie Grey	76.01	47.93	Laid up, lighter.
Rescue	124.09	84.92	Laid up, wrecking boat.
Albatros	31.38	18.25	Laid up, yacht.
Petrel	6.36	4.31	Laid up, passenger.
Alida	64.18	29.52	Laid up, tug.
Lady Glover	137.51	93.51	Laid up, freight and passenger.
L. Boyer	60.00	49.00	Laid up, tug.
Alameda	62.59	49.16	Laid up, repairing boiler, passenger.
Marietta	7.04	4.79	Laid up, new boiler, tug.
Vesta	9.21	5.40	Laid up, new boiler, tug.
Eleanor M. Cates	58.81	46.23	Repairing boiler, tug and passenger.
Vega	132.22	83.82	Laid up, passenger.
Oneita	14.96	10.18	Laid up, freight.
Juno	9.29	2.21	Laid up, repairing boiler, passenger.
Susie	26.83	15.74	Laid up, tug.
Carrie	14.83	7.37	Laid up, passenger.
Tourist	4.42	3.33	Laid up, passenger.
Total	844.42	557.79	

J. P. ESDAILE,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

NOVA SCOTIA DIVISION—*Continued.*

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Harbinger.....	50	Feb. 4..	108.56	Screw, pass., Yarmouth & adjacent islands.
Malcolm Cann.	100	Aug. 8..	211.81	Screw, pass. and frt., Mulgrave and coast.
Volunda.....	20	May 5..	29.80	Screw, pass. and tug, Sydney & Grand Lakes.
Hiawatha.....	40	May 5..	49.19	Screw, ferry, Pictou harbour.
Strathcona.....	100	Aug. 11..	284.09	Screw, pass. and freight, Halifax and coast.
Commodore.....	30	July 25..	12.84	Screw, pass. and freight, Halifax harbour.
Star.....	15	Sept. 5..	6.07	Screw, ferry, Wallace and W. Wallace.
Havana.....		Sept. 21..	470.98	Screw, freight, Canadian and foreign.
Baines Hawkins.		Sept. 26..	703.28	Screw, freight, Canadian and foreign.
Wasis.....		Aug. 12..	480.47	Screw, freight, Canadian and foreign.
Togo.....	50	Oct. 6..	97.31	Screw, pass. and tug, Hx. harbour and coast.
Westport III.....	125	Aug. 26..	140.01	Screw, pass. and frt., Yarmouth and coast.
Wilfred C.	60	Oct. 28..	99.26	Screw, pass., Halifax and coast.
Bridgewater.....	225	Oct. 27..	207.79	Screw, pass. and freight, Halifax and coast.
Mahone.....	39	Nov. 17..	126.70	Screw, pass. and freight, Halifax and coast.
Halifax.....	250	Nov. 17..	338.42	Paddle, ferry, Halifax harbour.
Yarmouth.....	450	Oct. 20..	1,451.92	Screw, pass. and freight, Canadian and foreign.
1906				
Harlaw.....	60	Mar. 31..	451.36	Screw, pass. and freight, Halifax and coast.
John L. Cann.....	125	April 7..	165.55	Screw, pass., Mulgrave and coast.
Prince Albert.....	160	April 7..	126.75	Screw, pass., Kingsport and ports.
Prince Albert.....	160	April 7..	126.73	Screw, pass. & frt., Kingsport & pts., B. of Fdy.
Dufferin.....	10	April 7..	210.57	Screw, pass. and freight, Halifax and coast.
Louisburg.....		April 13..	1,816.60	Screw, freight, Canadian and foreign.
Bonavista.....	50	April 4..	1,306.33	Screw, pass. and freight, Canadian and foreign.
Halifax.....	500	April 20..	1,874.88	Screw, pass. and freight, Canadian and foreign.
City of Ghent.....	60	April 17..	198.64	Screw, pass. and freight, Halifax and coast.
Lunenburg.....	175	April 21..	265.55	Screw, pass. and freight, Halifax and coast.
Inverness.....	40	April 19..	66.98	Screw, pass. and freight, Halifax and coast.
Dartmouth.....	600	April 24..	311.23	Paddle, ferry, Halifax harbour.
F. W. Roebbling....	35	April 24..	161.97	Screw, pass., Halifax and coast.
Cacouna.....		May 1..	1,450.78	Screw, freight, Canadian and foreign.
Cape Breton.....		May 1..	1,764.19	Screw, freight, foreign and Canadian.
Pawnee.....	450	May 1..	106.80	Screw, pass. and freight, Sydney and Bras d'Or
Peerless.....	300	May 2..	94.27	Screw, pass. and freight, Sydney and coast.
Weymouth.....	100	May 2..	153.93	Screw, pass. and freight, Sydney and coast.
Richmond.....	100	May 3..	162.30	Screw, pass. & frt., St. of Canso & C. B. lakes.
Merrimac.....	22	May 4..	85.80	Screw, pass. & tug, minor waters, C. Breton.
Iona.....	23	May 4..	54.27	Screw, pass. & tug, minor waters, C. Breton.
Gertrude M.....	35	May 10..	47.58	Screw, pass. & frt., Yarmouth and coast.
La Tour.....	60	May 10..	154.43	Screw, pass. & frt., Yarmouth and coast.
Douglas H. Thomas.	18	May 15..	211.91	Screw, pass. and tug, Halifax and coast.
Mikado.....	17	May 12..	43.94	Screw, pass. and freight, Halifax harbour.
Coban.....	24	May 17..	1,063.30	Screw, pass. and freight, Canadian and foreign
Acadia.....	37	May 17..	61.64	Screw, pass. & frt., Pictou hbr. & coast.
Hiawatha.....	40	May 18..	49.19	Screw, pass. & frt., Pictou & Pictou Landing.
May Queen.....	25	May 18..	35.92	Screw, pass. and freight, Pictou harbour.
J. L. Nelson.....	20	May 29..	37.84	Screw, pass. & frt., Halifax and coast.
Olive.....	40	April 4..	35.49	Screw, pass. and freight, Canso and vicinity.
A. C. Whitney.....	40	June 2..	62.67	Screw, pass. and tug, Halifax harbour.
Boston.....	550	June 6..	1,694.50	Screw, pass. and freight, Canadian & foreign.
Markland.....	40	June 7..	21.92	Screw, pass., Yarmouth and Cape Fourchu.
Juno.....	40	June 7..	9.29	Screw, pass., Yarmouth and Bay View.
Yuba.....	25	June 7..	12.40	Screw, pass. ferry, Barrington Passage.
Ida Lue.....	68	June 8..	44.51	Screw, pass. and tug, Weymouth and coast.
Avon.....	100	June 9..	64.66	Screw, pass. and freight, Rivon Aver.
Evangeline.....	150	June 10..	69.18	Screw, pass. & frt., Avon Riv. & Bay of Fundy.
Richard.....		June 12..	465.60	Screw, pass. and freight, Halifax and coast.
Mascotte.....	40	June 23..	30.40	Screw, pass. & frs., Lunenburg & shore ports.

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

NOVA SCOTIA DIVISION—*Continued.*

HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1905.		
Maggie.	37	June 23..	19.26	Screw, pass. & frt., Lunenburg & shore ports.
Trusty.	100	June 14..	57.60	Screw, pass. & frt., Lunenburg & shore ports.
Mersey.	20	June 26..	41.62	Screw, pass. & frt., Mersey R. & adjacent pts.
Edna R.	75	June 29..	49.66	Screw, pass. and freight, Annapolis & B. of Fdy
Glencoe.	40	June 29..	32.21	Screw, pass. and tug, Halifax harbour.
Pastime.	175	June 30..	67.71	Screw, pass. and tug, Halifax harbour.

S. R. HILL,
Inspector of Hulls and Equipment.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

NOVA SCOTIA DIVISION—Concluded.

HULL INSPECTION—Concluded.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Dahome.	60	Aug. 5..	2,469.74	197 60	Screw, pass. & frt., Can. & foreign.
Ocamo.	75	Aug. 19..	1,826.54	146 16	Screw, pass. & frt., Can. & foreign.
Pro Patria.	60	Aug. 27..	759.01	60 72	Screw, pass. & frt., Can. & foreign.
Orinoco.....	140	Aug. 8..	2,486.49	198 88	Screw, pass. & frt., Can. & foreign.
Beta.	75	Sept. 10..	1,086.67	86 96	Screw, pass. & frt., Can. & foreign.
Oruro.	150	Sept. 15..	1,919.07	153 62	Screw, pass. & frt., Can. & foreign.
		1906			
Baker.	60	Jan'y 9..	1,008.06	154 40	Screw, pass. & frt., Can. & foreign.
Dominion.		Feb'y 25..	4,021.17		Screw, freight, Can. & foreign.
Turret Bell.....		Mar. 20..	2,211.47		Screw, freight, Can. & foreign.
Britannic.		April 11..	2,302.45		Screw, freight, Can. & foreign.
Mystic.....		April 19..	3,793.50		Screw, freight, Can. & foreign.
Unique.....		April 24..	2,036.89		Screw, freight, Can. & foriegn.
Catalone.		April 24..	3,738.87		Screw, freight, Can. & foreign.
Amelia.	230	April 26..	350.54	28 55	Screw, pass. & frt., Halifax & coast.
Turbin.		May 3..	749.21		Screw, freight, Can. & foreign.
Prince Arthur	600	May 9..	2,041.44	163 28	Screw, pass. & frt., Can. & foreign.
Prince Rupert.	850	May 9..	1,158.44	92 64	Screw, pass. & frt., Yarmouth & cst.
Prince George.	600	May 9..	2,040.14	163 20	Screw, pass. & freight, Can. & forgn.
Scottish Hero.....		May 12..	2,201.56		Screw, freight, Can. & foreign.
Silva.....	136	May 13..	1,707.50	136 74	Screw, pass. & frt., Can. & foreign.
Universe		May 17..	2,535.51		Screw, freight, Can. & foriegn.
Chebucto.	400	May 9..	578.84	46 24	Screw, ferry, Halifax harbour.
Rosalind	160	June 2..	2,567.70	205 44	Screw, pass. & frt., Can. & foreign.

S. R. HILL,
Inspector of Hulls and Equipment.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1905.					
Edith		July	5..	21.55	Screw, tug, Miramichi river.
Wm. M.		July	5..	29.11	Screw, tug, Miramichi river.
Wenonah		July	5..	9.02	Screw, tug, Miramichi river.
Mascott		July	5..	70.50	Screw, tug, Miramichi river.
Sarcella.		July	5..	21.86	Screw, tug, Miramichi river.
Premier		July	5..	8.70	Screw, tug, Miramichi river.
Bridgetown		July	5..	14.66	Screw, tug, Miramichi river.
Sybella H.	40	July	5..	70.68	Paddle, ferry, Miramichi river.
Mary Odell.	70	July	5..	28.92	Screw, tug and pass., Miramichi river.
Alexandra	120	July	5..	200.72	Screw, pass., Miramichi river.
Arthur		July	6..	4.99	Screw, tug, Miramichi river.
St. Andrew		July	6..	76.64	Screw, tug, Miramichi river.
St. Kilda		July	6..	55.64	Paddle, tug, Miramichi river.
Jubilee		July	6..	16.52	Screw, tug, Miramichi river.
Gray Loggie.		July	6..	99.20	Screw, freight, Miramichi river.
Miramichi.	200	July	6..	75.18	Screw, pass., Miramichi river.
St. George	200	July	6..	277.78	Paddle, tug and pass., Miramichi river.
St. Nicholas.	100	July	6..	62.20	Screw, tug and pass., Miramichi river.
Laura		July	7..	13.55	Screw, tug and pass., Miramichi river.
David R.		July	7..	25.27	Screw, tug and pass., Miramichi river.
Bessie		July	7..	5.18	Screw, fish boat, Miramichi river.
Loyalist		July	7..	17.57	Paddle, tug, Miramichi river.
Zulu		July	7..	17.60	Paddle, tug, Miramichi river.
Irene		July	7..	10.29	Screw, tug, Miramichi river.
Lady Dufferin	40	July	7..	47.48	Paddle, ferry, Miramichi river.
Rustler	200	July	7..	101.54	Paddle, tug and pass., Miramichi river.
Victor		July	8..	45.51	Paddle, tug, Restigouche river.
Florence	25	July	8..	19.33	Screw, pass., Restigouche river.
Atlas		July	9..	15.79	Screw, tug, Restigouche river.
Henrietta		July	9..	19.12	Screw, tug, Restigouche river.
Wenola		July	9..	25.10	Screw, tug, Restigouche river.
Borrioboola Gha		July	9..	95.77	Paddle, tug, Restigouche river.
Nyanza	100	July	11..	83.21	Screw, tug and pass., Bathurst harbour.
St. Lawrence		July	11..	50.82	Screw, tug, coasting.
Viking	150	Aug.	16..	127.70	Screw, pass., Ste. Croix river and bay.
Flushing	143	Aug.	22..	177.65	Screw, pass., coasting.
Kathleen		Aug.	14..	6.01	Screw, pleasure yacht, St. John river.
Mildred		Aug.	21..	40.11	Screw, tug, St. John river and bay.
Lord Roberts.	40	Aug.	21..	55.98	Screw, tug and pass., coasting.
Dirigo	40	Aug.	31..	70.13	Screw, tug and pass., coasting.
Warning		Aug.	22..	28.74	Screw, tug, St. John river.
Calluna		Sept.	9..	22.26	Screw, tug, coasting north. shore
Powerful		Sept.	9..	29.34	Paddle, Richibucto river.
Alice		Sept.	10..	15.77	Screw, tug, Buctouche river.
Ouangondy	373	Sept.	17..	294.75	Paddle, ferry, St. John harbour.
E. Ross	40	Sept.	21..	29.63	Screw, ferry, St. John to Lancaster.
Springhill	100	Sept.	22..	189.05	Screw, tug and pass., coasting.
Mikado	32	Sept.	20..	80.09	Screw, pass., coasting.
Senlac	300	Oct.	6..	1,010.74	Screw, pass., coasting.
Vacuna		Oct.	10..	9.52	Screw, yacht, Ste. Croix river.
Kingsville		Oct.	20..	36.56	Screw, tug, St. John river and bay.
Aberdeen	362	Oct.	21	243.86	Stern wheel, pass., St. John river.
Aurora	200	Oct.	2..	364.24	Screw, pass., coasting.
Clifton	98	Dec.	1..	138.21	Stern wheel, pass., St. John river.
Western Extension..	427	Dec.	9..	424.89	Paddle, ferry, St. John harbour.
1906.					
Maggie M.		March	1..	65.78	Screw, tug, coasting.
Nereid.		March	14..	30.03	Screw, tug, St. John harbour and bay.
W. H. Murray		March	17..	74.89	Screw, tug, St. John harbour and bay.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Herculas.		March 20..	87.11	Screw, tug, St. John harbour and bay.
Harbinger.	46	March 25..	108.50	Screw, pass. and freight, coasting.
Daniel.		March 31..	28.81	Screw, tug, St. John river.
Springfield.	254	March 30..	232.73	Stern wheel, pass., St. John river.
Beatrice E. Warring.	563	March 30..	592.59	Stern wheel, pass., St. John river.
Helen Glasier.		March 30..	12.00	Screw, tug, St. John river.
Fred Glasier.		March 30..	10.39	Screw, tug, St. John river.
Champion.		March 30..	190.14	Paddle, tug, St. John river.
Hero.		March 30..	127.63	Paddle, tug, St. John river.
Sea King.		March 30..	128.63	Screw, tug, St. John river.
Admiral.		March 30..	158.20	Paddle, tug, St. John river.
Northumberland. ...	309	April 7..	1,255.46	Twin screw, pass., coasting.
Princess.	224	April 7..	541.79	Screw, pass., coasting.
City of London.	181	April 7..	515.77	Screw, pass., coasting.
Winnie.		April 13..	12.46	Screw, tug, St. John river.
Captain.		April 12..	68.43	Screw, tug, St. John river.
Majestic.	362	April 15..	274.63	Screw, pass., St. John river.
Joseph.		April 12..	53.75	Screw, tug, St. John river.
Serena E.	40	April 12..	24.94	Screw, tug and pass., St. John river.
Lily Glasier.		April 13..	209.31	Paddle, tug, St. John river.
Crystal Stream.	459	April 13..	482.05	Paddle, pass., St. John river.
Clayton.		April 15..	42.62	Screw, tug, St. John river.
Fannie.		April 15..	33.44	Screw, tug, St. John river.
Bismarck.		April 15..	48.04	Paddle, tug, St. John river.
1905.				
Champlain.	389	April 17..	392.46	Screw, pass., St. John river.
1906.				
May Queen.	388	April 20..	539.40	Paddle, pass., St. John river.
Maggie Miller.	137	April 26..	104.66	Paddle, ferry, Millidgeville.
Hampstead.	67	April 27..	234.52	Screw, pass., St. John river.
Martello.		April 27..	33.65	Screw, tug, St. John river.
G. D. Hunter.		April 28..	67.97	Screw, tug, St. John river.
Champlain.	400	May 1..	392.46	Screw, pass., St. John river.
Lady Eileen.	500	May 12..	920.72	Twin screw, pass., coasting.
Electra.	40	May 8..	106.96	Screw, pass., coasting.
Montague.	65	May 8..	129.55	Paddle, ferry, Georgetown, P.E.I.
Elfin.	126	May 9..	122.42	Paddle, ferry, Charlottetown.
Fred M. Batt.	16	May 8..	59.90	Screw, tug and pass., coasting.
Wm. Aitken.	22	May 9..	74.87	Screw, tug and pass., coasting.
Acadia.	141	May 9..	74.21	Screw, tug and pass., coasting.
T. A. Stewart.		May 9..	35.94	Screw, tug, coasting, P.E.I.
Gipsy.		May 9..	16.70	Screw, tug, coasting, P.E.I.
W. F. McRae.		May 9..	45.73	Screw, tug, coasting, P.E.I.
Granville.	40	May 18..	133.74	Screw, tug and pass., coasting.
James Holly.		May 19..	31.21	Screw, tug, St. John river.
Scionda.		May 20..	77.60	Screw, pleasure yacht, coasting.
Goliah.		April 29..	146.83	Screw, tug, coasting.
Beryl Essie.		May 22..	23.83	Screw, tug, coasting.
Success.		May 25..	20.54	Paddle, tug, Miramichi river.
Marshall W.		May 25..	5.52	Screw, tug, Miramichi river.
St. Kilda.		May 25..	55.64	Paddle, tug, Miramichi river.
James Neilson.		May 25..	30.50	Screw, tug, Miramichi river.
Pokanoket.	600	May 23..	489.63	Twin screw, pass., St. John river.
Ada.		May 29..	3.66	Screw, yacht, St. John river.
Fanchon.	36	May 29..	110.61	Paddle, tug and pass., St. John river.
Eva Johnson.		May 29..	15.77	Screw, tug, St. John river.
Annie Currier.		May 29..	10.56	Screw, tug, St. John river.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
		1906.			
Latona		May	29..	22.68	Twin screw, tug, St. John river.
Peri.		May	29..	11.77	Screw, tug, St. John river.
Randolph.		May	29..	8.71	Twin screw, tug, St. John river.
Ernest,		May	29..	12.58	Screw, tug, St. John river.
Allan Sewell.		May	29..	11.59	Screw, tug, St. John river.
Lord Wolsley.		May	30..	72.91	Screw, tug, St. John river and bay.
Victoria	800	June	7..	1,001.93	Paddle, pass., St. John river.
Frederick A.		June	7..	31.11	Screw, tug, St. John river and bay.
Quiddy		June	8..	30.59	Paddle, tug, St. John river and bay.
Hudson.		June	8..	33.59	Screw, pleasure yacht, St. John river.
Lillie	61	June	9..	71.64	Screw, tug and pass., coasting.
Tangent		June	9..	35.74	Twin screw, tug, St. John river.
Beaver	20	June	13..	84.73	Screw, pass. and freight, coasting.
Lord Kitchener	192	June	12..	161.24	Screw, tug and pass., coasting.
Brunswick	40	June	12..	184.27	Screw, pass. and freight, coasting.
Neptune	86	June	27..	71.15	Screw, tug and pass., coasting.
Total.				16,896.34	

C. E. DALTON,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Campobello.	100	Aug. 18..	39.81	3 12	Screw, ferry, Passamaquoddy bay.
Eastport.	150	Aug. 17..	64.29	5.12	Screw, ferry, Passamaquoddy bay.
Lubec.	125	Aug. 17..	50.94	4 08	Screw, ferry, Passamaquoddy bay.
Henry F. Eaton.	300	Aug. 15..	240.04	19 20	Screw, ferry, Passamaquoddy bay.
Ste. Croix.	500	Dec. 9..	1,993.58	159 52	Screw, pass., coasting.
Britannic.		April 9..	2,302.45		Screw, freight, coasting.
		1906.			
Elaine.	445	April 12..	272.08	21 76	Screw, pass., St. John river.
Calvin Austin.	980	June 3..	3,826.25		Screw, pass., coasting.
Penobscot.	600	June 5..	1,414.02		Screw, pass., coasting.
Total.			10,203.46	212 80	

C. E. DALTON,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Hope.	305.77	161.61	Paddle, tug, laid up, waiting new boiler.
Leader.	29.32	19.94	Screw, tug, laid up, waiting new boiler.
Squirrel.	13.11	8.97	Screw, tug, laid up, waiting new boiler.
Comet.	20.85	13.51	Paddle, tug, laid up, waiting new boiler.
Gracie Bell.	10.52	7.16	Screw, pleasure yacht, not applied for.
Zulu.	17.60	10.25	Paddle, tug, laid up, not applied for.
Marguerite.	19.66	12.30	Screw, pass., laid up, not applied for.
Dream.	45.51	30.27	Screw, pleasure yacht, inspected in July.
Zuleika.	15.87	10.79	Screw, pleasure yacht, inspected in July.
Clymene.	10.39	7.07	Screw, pleasure yacht, not applied for.
Nautilus.	26.58	18.07	Screw, pleasure yacht, not applied for.
Total.	514.18	299.94	

C. E. DALTON,
Steamboat Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—Continued.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1905.					
Sybella H	40	July	5..	70.68	Paddle, ferry, Chatham.
Alexandra	397	July	5..	200.72	Screw, pass., Chatham.
St. Nicholas	89	July	6..	62.20	Screw, pass., Chatham.
St. George	200	July	5..	277.78	Paddle, pass., Chatham.
Miramichi	200	July	6..	75.18	Screw, pass., Chatham.
Mary Odell	59	July	5..	28.92	Screw, pass., Chatham.
R. R. Call	30	July	7..	23.16	Screw, pass., Chatham.
Lady Dufferin	40	July	7..	47.48	Paddle, ferry, Newcastle.
Rustler	200	July	7..	101.54	Paddle, pass., Newcastle.
Florence	25	July	8..	19.33	Screw, pass., Campbellton.
Nyanza	78	July	11..	83.21	Screw, pass., Campbellton.
Champlain	400	May	1..	392.46	Screw, pass., St. John.
Forester	300	Aug.	12..	98.00	Barge, Rexton, N.B.
Viking	155	Aug.	16..	127.70	Screw, pass., St. Stephen.
Flushing	143	Aug.	22..	197.65	Screw, pass., St. John.
Vivian C	125	Aug.	25..	58.00	Barge in tow, St. John river.
Dirigo	40	Aug.	31..	70.13	Screw, pass., St. John.
E. Ross	40	Sept.	21..	29.63	Screw, ferry, St. John.
Senlac	300	Oct.	6..	1,010.74	Screw, pass., St. John.
Ouangondy	373	Sept.	17..	294.75	Paddle, ferry, St. John.
Aberdeen	362	Oct.	21..	243.86	Stern wheel, pass., Fredericton.
Aurora	200	Oct.	2..	364.24	Screw, pass., St. John.
Springhill	40	Sept.	22..	189.05	Screw, pass., coasting.
Mikado	50	Sept.	20..	80.09	Screw, pass., coasting.
Western Extension .	432	Dec.	19..	424.89	Paddle, ferry, St. John.
Lord Roberts	40	Aug.	21..	55.98	Screw, pass., St. John.
1906.					
Northumberland . . .	610	April	7..	1,255.46	Twin screw, pass., Summerside.
Princess	415	April	7..	541.79	Screw, pass., Charlottetown.
City of London	181	April	7..	515.77	Screw, pass., Charlottetown.
Springfield	216	April	1..	232.73	Stern wheel, pass., St. John.
Serena E	40	April	12..	24.94	Screw, pass., St. John.
Beatrice E. Waring .	563	Mar.	30..	592.59	Stern wheel, pass., St. John.
Majestic	362	April	15..	274.63	Screw, pass., St. John.
Champlain	389	April	15..	392.46	Screw, pass., St. John.
1905.					
Clifton	98	Dec.	1..	138.21	Stern wheel, pass., St. John.
1906.					
Crystal Stream	459	April	13..	482.05	Paddle pass., St. John.
May Queen	416	April	20..	539.40	Paddle, pass., St. John.
Maggie Miller	137	April	26..	104.66	Paddle, ferry, Millidgeville.
Hampstead	67	April	27..	234.52	Screw, pass., St. John.
Lady Eileen	500	May	12..	920.72	Twin screw, pass., Campbellton.
Montague	65	May	8..	129.56	Paddle, ferry, Georgetown.
Electra	40	May	8..	106.96	Screw, pass., Georgetown.
Elfin	120	May	9..	122.42	Paddle, ferry, Charlottetown.
Wm. Aitken	25	May	9..	74.87	Screw, pass., Charlottetown.
Fred. M. Batt	16	May	8..	57.90	Screw, pass., Charlottetown.
Acadia	141	May	9..	74.21	Screw, pass., Charlottetown.
Granville	40	May	18..	133.74	Screw, pass., St. John.
Pokanoket	600	May	20..	489.63	Twin screw, St. John.
Fanchon	36	May	29..	110.61	Paddle, pass., Fredericton.
Lillie	61	June	9..	71.64	Screw, pass., St. John.
Beaver	20	June	12..	84.73	Screw, pass., St. John.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—Continued.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Lord Kitchener	C. 40 R. 192	June 12..	161.24	Screw, pass., St. John.
Brunswick Minas B. Bay	286 40	June 12..	184.27	Screw, pass., St. John.
Harbinger	46	Mar. 25..	108.	56Screw, pass., St. John.
Victoria	800	June 7..	1,001.93	Paddle, pass., St. John.
Neptune	100	June 27..	71.15	Screw, pass., St. John.
1905.				
Kilkeel		Sept. 21..	252.27	Screw, freight, coasting.

I. J. OLIVE,
Hull Inspector.

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—Concluded.

HULL INSPECTION—Concluded.

Name of Vessel.	Number of Passengers Allowed	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
1905.					
				\$ cts.	
Henry F. Eaton . . .	300	Aug. 16..	240.04	19 02	Screw, pass., Calais, Me.
Lubec	145	Aug. 17..	50.94	4 08	Screw, ferry, Eastport, Me.
Campobello	125	Aug. 17..	39.81	3 12	Screw, ferry, Eastport, Me.
Eastport	150	Aug. 17..	64.29	5 12	Screw, ferry, Eastport, Me.
Ste. Croix	500	Dec. 9..	1,993.58	159 52	Screw, pass., coasting.
Britannic (at request of Collector of customs			2,302.00		Screw, freight, coasting.
1906.					
Elaine	445	April 12..	172.08	21 76	Screw, pass., St. John river.
Calvin Austin	980	June 3..	3,826.25		Screw, pass., coasting.
Penobscot	600	June 5..	1,414.02		Paddle, pass., coasting.

I. J. OLIVE,
Hull Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

BRITISH COLUMBIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
1905.					
Valhalla	30	July	10..	153.23	Tug and pass., Kootenay lake.
Nelson.....	125	July	10..	496.01	Freight and pass., Kootenay lake.
Pilot		July	10..	7.80	Tug, Kootenay lake.
Hercules.....	50	July	10..	64.68	Tug andpass., Kootenay lake.
Kokanee.....	200	July	11..	347.50	Freight and pass., Kootenay lake.
Ymir.....		July	11..	69.74	Tug, Kootenay lake.
Slogan.....	300	July	12..	578.03	Freight and pass., Slocan lake.
Sandon.....	50	July	12..	96.22	Freight and pass., Slocan lake.
Arrow.....		July	12..	4.50	Tug, Slocan lake.
Kaslo.....	500	July	13..	764.77	Freight and pass., Kootenay lake.
Moyie	250	July	13..	834.81	Freight and pass., Kootenay lake.
Alberta.....	200	July	14..	508.15	Freight and pass., Kootenay lake.
International.....	300	July	14..	525.55	Freight and pass., Kootenay lake.
Argenta.....	40	July	14..	206.32	Freight and pass., Kootenay lake.
Vixen.....		July	14..	7.46	Tug, Kootenay lake.
Minto.....	250	July	16..	828.91	Freight and pass., Columbia river.
Irene.....		July	16..	28.95	Tug, Columbia river.
Smuggler.....		July	16..	15.97	Tug, Columbia river.
Yale.....		July	16..	36.28	Tug, Columbia river.
Columbia.....		July	17..	49.84	Tug, Columbia river.
Rossland.....	300	July	17..	883.55	Freight and pass., Columbiariver.
Blonde.....		July	17..	32.64	Tug, Columbia river.
Lardeau.....		July	18..	9.60	Tug, Columbia river.
Archer.....	40	July	18..	15.52	Pass., Columbia river.
Geo. F. Piper.....	40	July	18..	70.15	Pass., Columbia river.
Kootenay.....	300	July	18..	1,117.09	Freight and pass., Columbia river.
Proctor.....	30	July	19..	43.12	Freight and pass., Trout lake.
Victoria.....	30	July	19..	106.60	Freight and pass.,fTrout lake.
Selkirk.....		July	21..	58.49	Yacht, Upper Columbia river.
Pert.....		July	21..	6.44	Tug, Upper Columbia river.
Ptarmigan.....	40	July	22..	246.45	Freight and pass., Columbia river.
Aberdeen.....	250	July	24..	554.04	Freight and pass., Okanagan lake.
York.....	70	July	25..	134.00	Freight and pass., Okanagan lake.
Kelowna.....	250	July	24..	65.38	Tug, Okanagan lake.
Riffle.....		July	27..	36.62	Freight, Thompson river.
Maude Annis.....		July	27..	22.54	Freight, Thompson river.
Thompson.....		July	27..	149.80	Freight, Thompson river.
Ethel Ross.....	12	July	27..	82.05	Freight and pass., Thompson river.
St. George.....	600	July	28..	544.22	Ferry, Burrard Inlet.
Princess Victoria.....	1,000	Aug.	4..	1,943.22	Freight and pass., coast, B. C.
Danube.....	300	Aug.	10..	886.89	Freight and pass., coast, B. C.
Joan.....	500	Aug.	13..	821.21	Freight and pass., coast, B. C.
Shamrock.....	50	Aug.	18..	23.83	Passenger, Victoria harbour.
Thistle.....	125	Aug.	29..	679.15	Freight and pass., coast, B. C.
Tees.....	125	Aug.	29..	679.15	Freight and pass., coast, B. C.
Fern.....		Sept.	2..	23.60	Tug, coast, B. C.
Iris.....	20	Sept.	15..	58.47	Freight and pass., coast, B. C.
Mamie.....	12	Aug.	9..	89.60	Freight and pass., coast, B. C.
Queen City.....	100	Sept.	8..	391.23	Freight and pass., coast, B. C.
Charmer.....	500	Oct.	10..	1,044.41	Freight and pass., coast, B. C.
Princess Beatrice.....	350	Nov.	19..	1,289.51	Freight and pass., coast, B. C.
Water Lily.....		Dec.	16..	73.81	Water boat, Esquimalt, B. C.
Flossie.....		Oct.	15..	4.64	Fishing tug, coast, B. C.
Maude.....		Dec.	5..	174.99	Freight, coast, B. C.
Delta.....		Dec.	14..	25.20	Freight, coast, B. C.
1906					
Sadie	12	Jan'y	6..	49.30	Tug and pass., coast, B. C.
Hope	12	Jan'y	5..	78.49	Tug and pass., coast, B. C.
Otter	70	Jan'y	12..	365.97	Freight and pass., coast, B. C.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*BRITISH COLUMBIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Albion	15	Jan'y 17..	88.11	Tug and pass., coast, B. C.
Constance	8	Jan'y 25..	11.17	Tug and pass., coast, B. C.
Shamrock	50	Feb. 9..	23.83	Passenger, inland waters.
Pilot	22	Feb. 16..	297.05	Tug and pass., coast, B. C.
Czar	15	Feb. 13..	152.18	Tug and pass., coast, B. C.
Princess May	350	Feb. 23..	1,393.76	Freight and pass., Can. and foreign ports.
J. L. Card		Mar. 6..	41.06	Freight, coast, B. C.
Edith		Mar. 7..	41.87	Fishing tug, coast, B. C.
Lorne	20	Mar. 13..	287.96	Tug and pass., coast, B. C.
Oscar		Mar. 21..	95.42	Freight, coast, B. C.
Selkirk	12	Mar. 20..	141.63	Freight and pass., coast, B. C.
Daisy	15	Mar. 18..	60.10	Freight and pass., coast, B. C.
Iroquois	65	Mar. 28..	195.49	Freight and pass., coast, B. C.
Royal City		Mar. 29..	38.38	Tug, coast, B. C.
Mount Royal	130	April 1..	471.03	Freight and pass., Skeena river.
Adam Hall		April 5..	144.61	Tug, Columbia river.
Enterprize		April 5..	20.00	Tug, Columbia river.
Revelstoke	90	April 5..	308.55	Freight and pass., Columbia river.
Maude Moore		April 7..	8.64	Yacht, Okanagan lake.
Trader	20	April 5..	167.81	Freight and pass., coast, B. C.
Edna Grace		April 13..	42.00	Tug, coast, B. C.
R. P. Rithet	81	April 15..	816.69	Freight and pass., coast, B. C.
Bute		April 26..	48.86	Tug, coast, B. C.
Venture	305	May 1..	812.45	Freight and pass., coast, B. C.
Amur	228	May 17..	907.17	Freight and pass., Can. and foreign ports.
City of Nanaimo	500	May 22..	761.37	Freight and pass., coast, B. C.
Athens		May 23..	23.21	Fishing tug, coast, B. C.
Alert		May 27..	43.81	Tug, coast, B. C.
Yosemite	400	June 7..	1,525.03	Freight and pass., coast, B. C.
Albatross		June 15..	37.87	Tug, coast, B. C.
Forager		June 1..	89.57	Freight, coast, B. C.
Phoenix	30	June 19..	187.18	Tug and pass., coast, B. C.
Dominion		June 27..	17.58	Tug, coast, B. C.
Total			27,493.14	

J. A. THOMSON,
Steamboat Inspector.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

BRITISH COLUMBIA DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Dolphin.	235	Aug. 11..	824.26	65 92	Freight & pass., Can. & foreign pts.
Cottage City.	273	Aug. 9..	1,885.11	150 80	Freight & pass., Can. & foreign pts.
Ramona.	113	Aug. 25..	1,061.39	84 88	Freight & pass., Can. & foreign pts.
Queen.	385	Aug. 28..	2,727.80	218 24	Freight & pass., Can. & foreign pts.
Jefferson	249	Sept. 3..	1,615.34	129 20	Freight & pass., Can. & foreign pts.
City of Puebla.	366	Sept. 2..	2,623.88	209 92	Freight & pass., Can. & foreign pts.
Rosalie.	127	Oct. 22..	318.51	25 52	Freight & pass., Can. & foreign pts.
Whatcom.	200	Jan'y 23..	716.00	57 28	Freight & pass., Can. & foreign pts.
Senator	417	April 27..	2,409.60		Freight & pass., Can. & foreign pts.
Valencia.	286	April 27..	1,598.49		Freight & pass., Can. & foreign pts.
City of Seattle.	456	May 12..	1,411.05		Freight & pass., Can. & foreign pts.
Humbolt.	321	May 12..	1,075.00		Freight & pass., Can. & foreign pts.
Umatilla	427	May 23..	3,069.76		Freight & pass., Can. & foreign pts.
Spokane.	287	May 18..	2,036.20		Freight & pass., Can. & foreign pts.
Total			23,372.39	\$941 76	

J. A. THOMSON,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

BRITISH COLUMBIA DIVISION—Concluded.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Idler.	3.88	1.94	Yacht laid up, no application.
Aime.	8.56	5.83	Tug, laid up, no application.
Kootenay.	7.74	5.26	Yacht, laid up, no application.
Alberta Lea.	18.67	12.89	Fishing tug, no application.
Brant.	18.66	12.88	Fishing tug, no application.
Victorian.	1,503.64	809.17	Freight and pass., out of service, laid up.
Total.	1,561.15	847.97	

J. A. THOMSON,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Hilda.....		July 7..	33	Screw, tug, British Columbia waters.
Erie.....		July 7..	27	Screw, tug, British Columbia waters.
Spray.....		July 7..	7	Screw, tug, British Columbia waters.
Horseshoe.....		July 7..	18	Screw, tug, Fraser river.
Westminster.....		July 7..	18	Screw, tug, Fraser river.
Peerless.....		July 7..	128	Screw, tug, British Columbia waters.
Chehalis.....	15	May 7..	54	Screw, tug, British Columbia waters.
Mouping.....		May 7..	20	Screw, tug, British Columbia waters.
Greenwood.....		July 7..	23	Screw, tug, British Columbia waters.
Casca.....	150	July 28..	590	Stern wheel, pass., freight, Yukon river.
Prospector.....	130	July 30..	263	Stern wheel, pass., freight, Yukon river.
Emma Nott.....	20	Aug. 1..	73	Stern wheel, pass., freight, Yukon river.
White Horse.....	175	Aug. 5..	987	Stern wheel, pass., freight, Yukon river.
Golden Crown No. 1.....		Aug. 10..	114	Stern wheel, pass., freight, Yukon river.
Quick.....	15	Aug. 11..	67	Stern wheel, pass., freight, Yukon river.
Wilbur Crimmins.....	70	Aug. 15..	168	Stern wheel, pass., freight, Yukon river.
Dawson.....	175	Aug. 16..	779	Stern wheel, pass., freight, Yukon river.
Bonanza King.....	60	Aug. 17..	466	Stern wheel, pass., freight, Yukon river.
J. P. Light.....	50	Aug. 18..	719	Stern wheel, pass., freight, Yukon river.
Lightwing.....	75	Aug. 19..	557	Stern wheel, pass., freight, Yukon river.
Tyrrell.....	150	Aug. 19..	678	Stern wheel, pass., freight, Yukon river.
Canadian.....	175	Aug. 20..	716	Stern wheel, pass., freight, Yukon river.
Thistle.....	130	Aug. 23..	223	Stern wheel, pass., freight, Yukon river.
Columbian.....	175	Aug. 24..	716	Stern wheel, pass., freight, Yukon river.
Victorian.....	175	Aug. 25..	716	Stern wheel, pass., freight, Yukon river.
Selkirk.....	175	Aug. 26..	777	Stern wheel, pass., freight, Yukon river.
Zealandian.....	70	Sept. 8..	180	Stern wheel, pass., freight, Yukon river.
Bailey.....	100	Sept. 9..	193	Stern wheel, pass., freight, Yukon river.
Gleaner.....	150	Sept. 12..	241	Stern wheel, Taku Arm.
Scotia.....	100	Sept. 14..	214	Stern wheel, Atlin lake.
Australian.....	150	Sept. 15..	422	Stern wheel, pass., freight, Taku Arm.
Olive May.....		Sept. 16..	85	Stern wheel, pass., freight, Yukon river.
Joseph Cissett.....	50	Sept. 16..	147	Stern wheel, pass., freight, Yukon river.
Yukoner.....	175	Sept 16..	781	Stern wheel, pass., freight, Yukon river.
La France.....	130	Sept 16..	201	Stern wheel, pass., freight, Yukon river.
Staffa.....		Oct. 1..	51	Screw, freight, British Columbia waters.
Rustler.....		Oct. 2..	13	Screw, tug, British Columbia waters.
Clansman.....		Oct. 3..	72	Screw, freight, British Columbia waters.
Saturna.....		Oct. 4..	22	Screw, tug, British Columbia waters.
Fingal.....		Oct. 5..	91	Screw, freight, British Columbia waters.
Isaac.....		Oct. 6..	8	Screw, tug, British Columbia waters.
Squid.....		Nov. 1..	60	Screw, freight, British Columbia waters.
Cassiar.....	300	Nov. 5..	597	Screw, pass., freight, British Columbia waters.
Gipsy.....		Nov. 2..	10	Screw, tug, British Columbia waters.
Lapwing.....		Nov. 3..	151	Screw, freight, British Columbia waters.
Stella.....		Nov. 11..	16	Screw, tug, British Columbia waters.
Senator.....		Nov. 12..	28	Screw, tug, British Columbia waters.
Vancouver.....	12	Nov. 18..	50	Screw, tug, British Columbia waters.
Favorite.....	100	Nov. 19..	257	Stern wheel, pass., freight, Fraser river.
Kildonan.....		Nov. 5..	51	Screw, tug, British Columbia waters.
Mystery.....		Nov. 26..	65	Screw, tug, British Columbia waters.
Eva.....		Dec. 5..	40	Screw, tug, British Columbia waters.
Linda.....		Dec. 8..	37	Screw, tug, British Columbia waters.
Etta White.....	15	Nov. 11..	97	Screw, tug, British Columbia waters.
Hope.....		Dec. 24..	26	Screw, tug, British Columbia waters.
1906.				
Raven.....		Jan. 12..	25	Screw, tug, British Columbia waters.
Transfer.....	120	Jan. 23..	264	Stern wheel, pass., freight, Fraser river.
Lottie.....		Jan. 24..	29	Screw, tug, British Columbia waters.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*BRITISH COLUMBIA AND YUKON DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.		Gross Tons.	Class of Vessel and where Employed.
		1906.			
Active	20	Jan.	25..	172	Screw, tug, British Columbia waters.
Comox	60	Jan.	30..	101	Screw, pass., freight, British Columbia waters.
Edna		Feb.	1..	18	Screw, tug, British Columbia waters.
K. & W. W. 6		Feb.	8..	151	Elevator, British Columbia waters.
Vigilant		Feb.	1..	29	Screw, tug, British Columbia waters.
Brittania	300	Feb.	13..	326	Screw, pass., freight, British Columbia waters.
Coquitlam	75	Feb.	20..	256	Screw, pass., freight, British Columbia waters.
Sunbury		Feb.	21..	38	Screw, tug, British Columbia waters.
Robert Dunsmuir	30	Feb.	22..	232	Screw, pass., freight, British Columbia waters.
Defiance	39	Feb.	23..	90	Screw, pass., freight, British Columbia waters.
Ramona	75	Mar.	6..	251	Stern wheel, pass., freight, Fraser river.
Firefly		Mar.	6..	46	Stern wheel, tug, Fraser river.
Magnet		Mar.	6..	24	Screw, tug, Fraser river.
Bermuda	25	Mar.	9..	72	Screw, tug, British Columbia waters.
Fearless	15	Mar.	14..	53	Screw, tug, British Columbia waters.
Vulcan		Mar.	14..	77	Screw, tug, British Columbia waters.
Brunette		Mar.	14..	37	Screw, tug, British Columbia waters.
Iris		Mar.	14..	38	Screw, tug, British Columbia waters.
Milkmaid		Mar.	14..	7	Screw, tug, British Columbia waters.
Clutha		Mar.	14..	28	Screw, tug, British Columbia waters.
Stranger		Mar.	14..	21	Screw, tug, British Columbia waters.
Mable		Mar.	14..	5	Screw, tug, British Columbia waters.
Native	10	Mar.	15..	52	Screw, tug, British Columbia waters.
Superior		Mar.	16..	44	Screw, tug, British Columbia waters.
Alice		Mar.	17..	35	Screw, tug, British Columbia waters.
Elsie		Mar.	18..	16	Screw, tug, British Columbia waters.
Cascade		Mar.	19..	119	Screw, freight, British Columbia waters.
Nagasaki		Mar.	20..	15	Screw, tug, British Columbia waters.
Belle		Mar.	21..	94	Screw, tug, British Columbia waters.
Queen of Pacific		April	3..	78	Screw, freight, British Columbia waters.
May	20	Mar.	10..	8	Screw, pass., gasoline, British Columbia waters.
Lily		April	6..	12	Screw, yacht, British Columbia waters.
North Vancouver	200	April	7..	104	Screw, ferry, Burrard inlet.
Tepic	15	April	11..	71	Screw, tug, British Columbia waters.
Burrard		April	14..	56	Screw, tug, British Columbia waters.
Alert		April	14..	12	Screw, tug, British Columbia waters.
Evangeline		April	17..	14	Screw, yacht, Alert bay.
Swan		April	18..	36	Screw, tug, British Columbia waters.
Vesta		April	21..	12	Screw, yacht, British Columbia waters.
Glen Rosa		April	21..	18	Screw, tug, Skeena river.
Nora		April	21..	20	Screw, tug, Skeena river.
Hazelton	150	April	21..	378	Stern wheel, pass., freight, Skeena river.
Chiefton	20	April	22..	65	Screw, tug, British Columbia waters.
Maime		April	22..	9	Screw, tug, Skeena river.
Vera		April	22..	6	Screw, tug, Skeena river.
Lottie N		April	22..	34	Screw, tug, Skeena river.
Florence		April	22..	30	Screw, tug, Skeena river.
Edna W.		April	24..	15	Screw, tug, Alert bay.
Donney		April	26..	15	Screw, tug, British Columbia waters.
Muriel		May	1..	44	Screw, tug, British Columbia waters.
Dauntless		May	1..	128	Screw, tug, British Columbia waters.
Heneritta		May	1..	762	Screw, pass., freight, foreign.
Comet	12	May	3..	85	Screw, tug, British Columbia waters.
Capilano	25	May	6..	231	Screw, pass., freight, British Columbia waters.
Comox	60	May	6..	101	Screw, pass., freight, British Columbia waters.
Delta		May	17..	15	Screw, tug, British Columbia waters.
Le Roi		May	17..	196	Screw, tug, British Columbia waters.
City of Tipella		May	18..	19	Screw, tug, British Columbia waters.
Halifax		May	18..	28	Screw, tug, British Columbia waters.
Lora		May	19..	8	Screw, tug, Fraser river.
Constance		May	19..	50	Screw, tug, British Columbia waters.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*BRITISH COLUMBIA AND YUKON DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Troubador		May 19..	18	Screw, tug, British Columbia waters.
Surprise		May 19..	75	Screw, freight, British Columbia waters.
Tyee		May 19..	75	Screw, tug, British Columbia waters.
Chehalis	15	May 1..	54	Screw, tug, British Columbia waters.
Clara Young	15	May 22..	31	Screw, freight, British Columbia waters.
Greenwood		May 22..	23	Screw, tug, British Columbia waters.
Unican	40	May 25..	131	Screw, freight, British Columbia waters.
Alice	12	May 26..	11	Screw, pass., Burrard inlet.
Stampede	12	May 23..	12	Screw, tug, British Columbia waters.
Beaver	150	May 29..	545	Stern wheel, pass., freight, Fraser river.
Flyer		May 29..	48	Screw, tug, British Columbia waters. *
Autolycus		May 30..	25	Screw, tug, British Columbia waters.
Reliance		May 30..	9	Screw, tug, British Columbia waters.
Surrey	350	May 30..	263	Paddle, ferry, Burrard inlet.
Eagle		May 31..	35	Screw, tug, British Columbia waters.
Pheasant	88	April 19..	251	Stern wheel, pass., freight, Fraser river.
Minto	20	June 1..	36	Stern wheel, pass., wheel, Harrison river.
Defender		June 1..	216	Stern wheel, freight, Harrison river.
Sonoma	45	June 6..	19	Screw, pass., Burrard inlet.
New Era	40	June 6..	56	Screw, pass., freight, British Columbia waters.
Belfast		June 3..	105	Screw, freight, British Columbia waters.
Coutli		May 10..	99	Screw, tug, British Columbia waters.
Eva		June 2..	40	Screw, tug, British Columbia waters.
Vancouver	12	May 21..	50	Screw, tug, British Columbia waters.
Dorothy		May 14..	20	Screw, tug, British Columbia waters.
Jessie Mac		June 14..	57	Screw, freight, British Columbia waters.
Cleeve		May 1..	36	Screw, tug, British Columbia waters.
Clive		June 15..	35	Screw, tug, British Columbia waters.
Enterprise		June 17..	12	Screw, tug, British Columbia waters.
Sea Lion		June 21..	218	Screw, tug, British Columbia waters.
Wellington		June 21..	16	Screw, tug, Fraser river.
Water Lily		June 21..	4	Screw, yacht, Fraser river.
Constance		June 22..	23	Screw, tug, British Columbia waters.
Fraser		June 23..	36	Screw, freight, British Columbia waters.
Mouping		June 24..	20	Screw, yacht, British Columbia waters.
Dolphin		June 20..	20	Screw, tug, British Columbia waters.
Beaver		June 28..	20	Screw, pass., British Columbia waters.
McCulloch		June 29..	39	Screw, freight, British Columbia waters.
Total			21,308	

F. M. RICHARDSON,
Steamboat Inspector.

5-6 EDWARD VII., A. 1906

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

BRITISH COLUMBIA AND YUKON DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Susie	250	July 23 . .	1,211	104 88	Stern wheel, pass., frt., Yukon river.
Monarch	184	July 29 . .	463	45 04	Stern wheel, pass., frt., Yukon river.
Oil City	75	Aug. 3 . .	718	65 44	Stern wheel, pass., frt., Yukon river.
Sarah	250	Aug. 13 . .	1,211	104 88	Stern wheel, pass., frt., Yukon river.
Louise	150	Aug. 16 . .	718	65 44	Stern wheel, pass., frt., Yukon river.
John Cudahy	150	Sept. 1 . .	820	73 60	Stern wheel, pass., frt., Yukon river.
Lavelle Young	50	Sept. 1 . .	506	48 48	Stern wheel, pass., frt., Yukon river.
Camosun		June 28 . .	1,369	109 52	Screw, pass., frt., Brit. Col. waters.
Total			6,716	617 28	

F. M. RICHARDSON,
Steamboat Inspector.

STEAM VESSELS not Inspected for the Year ended June 30, 1905.

BRITISH COLUMBIA AND YUKON DIVISION—Concluded.

BOILERS AND MACHINERY—Concluded.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Leonora	20	18	Screw, tug, no application.
Sendai	14	10	Screw, tug, no application.
Fern	24	17	Screw, tug, no application.
Sea Lion	16	4	Screw, tug, no application.
Winneta	24	16	Screw, tug, no application.
On Time	11	4	Screw, tug, no application.
Spray	7	5	Screw, tug, no application.
Burt	50	34	Screw, tug, no application.
Starling	8	5	Screw, tug, no application.
Uno	12	8	Screw, tug, no application.
Orillia	12	9	Screw, tug, no application.
Horseshoe	18	11	Screw, tug, no application.
Olive	71	45	Stern wheel, freight, no application.
Lark	58	37	Stern wheel, freight, no application.
Ariadne	14	9	Yacht, no application.
Evolvo	13	9	Yacht, no application.
Westminster	18	14	Screw, tug, to be inspected.
Hubert	6	4	Screw, tug, to be inspected.
Total	386	259	

F. M. RICHARDSON,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905.

BRITISH COLUMBIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Mamie.	12	Aug. 9..	89.60	Screw, freight and pass., B.C. waters.
Danube.	300	Aug. 10..	886.89	Screw, freight and pass., B.C. waters.
Princess Victoria. . .	1,000	Aug. 4..	1,943.22	Twin screw, freight and pass., B. C. Waters and foreign ports.
Shamrock.	50	Aug. 18..	23.03	Screw, freight and pass., Victoria harbour.
Thistle.	100	Aug. 23..	383.99	Screw, freight and pass., B.C. waters.
Joan.	500	Aug. 13..	821.21	Twin screw, freight and pass., B.C. waters.
Tees.	125	Aug. 29..	679.15	Screw, freight and pass., B.C. waters.
New Era.	20	Aug. 30..	55.96	Screw, freight and pass., B.C. waters.
Iris.	20	Sept. 3..	58.47	Screw, freight and pass., B.C. waters.
Queen City.	100	Sept. 8..	391.21	Screw, freight and pass., B.C., waters.
Charmer.	500	Oct. 10..	1,064.41	Screw, freight and pass., B.C. waters.
Cassiar.	300	Nov. 5..	597.18	Screw, freight and pass., B.C. waters.
Lapwing.	None.	Nov. 9..	150.73	Screw, freight and pass., B.C. waters.
Favourite.	100	Nov. 9..	256.78	Stern wheel, freight and pass., Fraser river.
Princess Beatrice. . .	350	Nov. 19..	1,289.51	Screw, freight and pass., B.C. & foreign ports.
Etta White.	15	Nov. 11..	97.35	Screw, tug and pass., B.C. waters.
Maude.	12	Dec. 5..	174.99	Screw, freight and pass., B.C. waters.
1906.				
Hope.	12	Jan. 5..	78.49	Screw, tug, freight and pass., B.C. waters.
Sadie.	12	Jan. 6..	49.30	Screw, tug, freight and pass., B.C. waters.
Active.	18	Jan. 11..	171.74	Screw, tug, freight and pass., B.C. waters.
Transfer.	120	Jan. 11..	264.16	Stern wheel, freight and pass., Fraser river.
Comox.	140	Jan. 12..	101.17	Screw, freight and pass., B.C. waters.
Ottter.	70	Jan. 12..	365.97	Screw, freight and pass., B.C. waters.
Albion.	15	Jan. 17..	88.11	Screw, freight and pass., B.C. waters.
Constance.	8	Jan. 25..	11.17	Screw, freight and pass., B.C. waters.
Shamrock.	50	Feb. 9..	23.83	Screw, freight and pass., B.C. waters.
Robert Densmuir. . .	30	Jan. 13..	231.75	Twin screw, freight and pass., B.C. waters.
Czar.	15	Feb. 13..	152.18	Screw, freight and pass., B.C. waters.
Defiance.	39	Feb. 14..	89.88	Screw, freight and pass., B.C. waters.
Pilot.	22	Feb. 16..	279.05	Screw, freight and pass., B.C. waters.
Coquitlam.	75	Feb. 20..	325.96	Screw, freight and pass., B.C. waters.
Britannia.	300	Feb. 21..	325.94	Screw, freight and pass., B.C. waters.
Princess May.	350	Feb. 23..	1,393.76	Twin screw, freight and pass., B.C. & for. pts.
May.	20	March 10..	7.97	Screw, pass., B.C. waters.
Bermuda.	25	March 11..	72.03	Screw, freight and pass., B.C. waters.
Lorne.	20	March 13..	287.96	Screw, freight and pass., B.C. waters.
Daisy.	15	March 18..	60.10	Screw, freight and pass., B.C. waters.
Selkirk.	12	March 20..	141.63	Screw, freight and pass., B.C. waters.
Fearless.	15	March 21..	52.97	Screw, freight and pass., B.C. waters.
Native.	10	March 22..	51.51	Screw, freight and pass., B.C. waters.
Iroquois.	65	March 27..	195.49	Screw, freight and pass., B.C. waters.
Mount Royal.	130	April 1..	471.03	Stern wheel, Skeena river.
Trader.	20	April 5..	167.18	Screw, freight and pass., B.C. waters
Tepic.	15	April 13..	70.87	Screw, freight and pass., B.C. waters.
North Vancouver. . .	200	April 13..	103.83	Screw, ferry, north Vancouver.
Coquitlam.	50	April 14..	256.33	Screw, freight and pass., B.C. waters.
R. P. Rithet.	81	April 15..	816.69	Stern wheel, Victoria and Fraser river.
Pheasant.	88	April 19..	251.45	Stern wheel, Fraser river.
Ramona.	75	April 19..	250.79	Stern wheel, Fraser river
Comet.	12	April 20..	85.26	Screw, freight and pass., B.C. waters.
Capilano.	70	Feb. 16..	231.14	Screw, freight and pass., B.C. waters.
Venture.	305	May 1..	812.45	Screw, freight and pass., B.C. waters.
Comox.	60	May 8..	101.17	Screw, freight and pass., B.C. waters.
Alice.	12	May 13..	10.98	Screw, freight and pass., B.C. waters.
Amur.	228	May 17..	907.17	Screw, freight and pass., B.C. waters.
Burrard.	10	May 19..	56.26	Screw, freight and pass., B.C. waters.
Belfast.	60	May 19..	105.15	Screw, freight and pass., B.C. waters

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Continued.*

BRITISH COLUMBIA DIVISION—*Continued.*

HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
City of Nanaimo....	500	May 22..	761.37	Twin screw, freight and pass., B.C. waters.
Unican	34	May 25..	130.92	Screw, freight and pass., B.C. waters.
Beaver	300	June 1..	545.44	Stern wheel freight and pass., Fraser river.
Royal City.	10	March 29..	38.38	Screw, freight and pass., B.C. waters.
Sanoma.	45	June 2..	19.23	Screw, freight and pass., B.C. waters.
Henrietta	25	June 3..	761.53	Twin screw, freight and pass., Vancouver and northern waters.
Chehalis.	15	May 4..	53.75	Screw, freight and pass., B.C. waters.
Yosemite	400	June 7..	1,525.03	Paddle, freight and pass., B.C. waters.
Vancouver.	24	June 9..	49.96	Screw, freight and pass., B.C. waters.
Surrey.	350	June 9..	263.26	Paddle, ferry, Burrard inlet.
Defender.	None.	June 10..	216.10	Stern wheel, freight, Fraser river.
Minto	20	June 10..	36.17	Stern wheel, freight and pass., Fraser river.
Phoenix.	30	June 19..	37.18	Screw, freight and pass., B.C. waters.
Beaver	40	June 26..	19.93	Screw, freight and pass., B.C. waters.

R. COLLISTER,
Hull Inspector.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

BRITISH COLUMBIA DIVISION—Concluded.

HULL INSPECTION—Concluded.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Dolphin.	235	Aug. 11. .	824.26	65 92	Twin screw, freight and pass., B.C. and foreign ports.
Ramona	113	Aug. 25. .	1,061.39	84.88	S., frt., pass., B.C. & foreign ports.
Queen	495	Aug. 28. .	2,727.80	218.24	S., frt., pass., B.C. & foreign ports.
Cottage City.	273	Aug. 9. .	1,885.11	150.80	S., frt., pass., B.C. & foreign ports.
Jefferson	244	Sept. 3. .	1,615.34	129.20	S., frt., pass., B.C. & foreign ports.
City of Puebla.	366	Sept. 2. .	2,623.88	209.92	S., frt., pass., B.C. & foreign ports.
Rosalie.	127	Oct. 22. .	318.51	25.52	S., frt., pass., B.C. & foreign ports.
		1906.			
Whatsom.	200	Jan. 24. .	716.00	57.28	S., frt., pass., B.C. & foreign ports.
Valencia	286	April 27. .	1,598.49	.....	S., frt., pass., B.C. & foreign ports.
Senator	417	April 27. .	2,409.60	.....	S., frt., pass., B.C. & foreign ports.
Humboldt.	321	May 12. .	1,075.00	.....	S., frt., pass., B.C. & foreign ports.
City of Seattle.	456	May 12. .	1,411.05	.....	S., frt., pass., B.C. & foreign ports.
Umatilla	427	May 13. .	3,067.76	.....	S., frt., pass., B.C. & foreign ports.
Spokane.	287	May 18. .	2,036.20	.....	S., frt., pass., B.C. & foreign ports.

R. COLLISTER,
Hull Inspector.

STEAM VESSELS Inspected for the Year ended June 30, 1905.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1905.				
Frederick.....		July 5..	35.77	Screw, tug, Lake Winnipeg.
Roddy.....		July 5..	14.10	Screw, fish tug, Lake Winnipeg.
Saskatchewan	50	July 9..	224.88	Stern wheel, pass., Saskatchewan river.
Marion.....		May 9..	31.54	Screw, tug, Saskatchewan river.
Pathfinder.....		May 9..	22.84	Paddle, tug.
Georgina.....	25	May 18..	43.78	Screw, pass., Thunder Bay.
Nahma.....		May 20..	7.38	Screw, tug, Thunder Bay.
Dryden Bell.....		July 20..	15.20	Screw, fish tug, Eagle lake.
Kaministiquie.....	230	July 27..	149.87	Screw, pass., Thunder bay.
Circe.....		Aug. 9..	2.83	Screw, tug, Thunder bay.
Viking.....		Aug. 10..	15.25	Screw, fish tug, Jackfish, Lake Superior.
Swan.....		Aug. 10..	7.76	Screw, fish tug, Rossport, Lake Superior.
Glenora.....		Aug. 10..	16.72	Screw, fish tug, Rossport, Lake Superior.
Maud C.....		Aug. 10..	5.16	Screw, fish tug, Rossport, Lake Superior.
Maple Leaf.....		Aug. 11..	5.21	Screw, fish tug, Rossport, Lake Superior.
Bertha.....		Aug. 11..	10.57	Screw, fish tug, Rossport, Lake Superior.
Alexander.....		Not issued.	2.50	Screw, fish tug, Rossport, Lake Superior.
Orcadia.....		Aug. 12..	23.16	Screw, fish tug, P. Caldwell, Lake Superior.
W. G. Ireland.....		Aug. 15..	104.91	Screw, freight, Lake Superior.
Kestrel.....		Aug. 20..	13.34	Screw, yacht, Thunder bay.
Gertie.....		Aug. 20..	52.72	Screw, freight, Thunder bay.
Viper.....		Aug. 15..	33.94	Screw, tug, Thunder bay.
St. Joe.....		Aug. 15..	117.64	Screw, freight, Nepegon bay.
Superior.....	120	Aug. 15..	88.51	Screw, pass., Lake Superior.
Pioneer.....		Not issued.	16.44	Screw, yacht, Pelecan lake.
Fern.....		Aug. 20..	16.00	Screw, tug, Red river.
Lottie S.....	15	Sept. 12..	48.03	Screw, pass., Lake Winnipegosis.
Manitou.....	40	Sept. 13..	117.79	Screw, pass., Lake Winnipegosis.
Iona.....		Sept. 13..	39.15	Screw, tug, Lake Winnipegosis.
Allie.....		Sept. 13..	10.74	Screw, yacht, Lake Winnipegosis.
Dispatch.....		Not issued.	12.66	Screw, fish tug, Cedar lake.
North Star.....		Not issued.	10.00	Paddle, freight, Saskatchewan river.
Assiniboia.....		Not issued.	97.79	Paddle, freight, Saskatchewan river.
Klondyke.....		Not issued.	8.03	Screw, tug, Saskatchewan river.
Lady Ellen.....		Oct. 3..	18.57	Screw, tug, Lake Winnipegosis.
Isabell.....		Oct. 7..	40.73	Screw, tug, Lake Winnipegosis.
Hunter.....		Oct. 13..	11.30	Screw, tug, Lake of the Woods.
Bessie B.....		Oct. 20..	53.43	Screw, tug, Lake of the Woods.
Majestic.....		Oct. 25..	63.96	Screw, tug, Lake Winnipeg.
Carbary.....		Oct. 31..	61.78	Screw, tug, Lake Manitoba.
1906				
Saskatchewan	75	April 22..	224.88	Stern wheel, pass., Saskatchewan river.
Alberta.....	200	April 22..	315.40	Stern wheel, pass., Saskatchewan river.
Marion.....		April 22..	31.55	Screw, tug, Saskatchewan river.
Pathfinder.....		April 22..	22.84	Paddle, tug, Saskatchewan river.
Zena.....	25	April 29..	59.10	Screw, pass., Thunder bay.
Siskewett.....		April 29..	47.17	Screw, tug, Thunder bay.
Herbert.....		April 29..	21.13	Screw, tug, Thunder bay.
Nahma.....		April 29..	7.38	Screw, tug, Thunder bay.
Georgina.....	30	April 29..	43.78	Screw, passenger, Thunder bay.
Lulu M. Ray.....		April 29..	32.64	Screw, tug, Thunder bay.
James Adams.....		April 29..	50.79	Screw, tug, Thunder bay.
Joe Dudley.....		April 29..	52.47	Screw, tug, Thunder bay.
A. V. Crawford.....		April 29..	51.40	Screw, tug, Thunder bay.
Laura Grace.....	150	April 29..	85.56	Screw, pass., Thunder bay.
Dredge No. 6.....		April 29..	209.52	Dredge, Thunder bay.
Dredge No. 1.....		April 29..	204.75	Dredge, Thunder bay.
Kingsford.....		April 29..	226.00	Dredge, Thunder bay.
Argyle.....	150	May 2..	77.70	Screw, ferry, Keewatin and Kenora.
Heather Bell.....	20	May 3..	20.18	Screw, pass., Lake of the Woods.

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected for the Year ended June 30, 1905—*Concluded.*KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION—*Continued.*BOILER, MACHINERY AND HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Keewatin.....	100	May 3..	81.84	Screw, pass., Lake of the Woods.
Five Roses.....		May 3..	42.95	Screw, tug, Lake of the Woods.
Clipper.....	40	May 3..	52.59	Screw, pass., Lake of the Woods.
Brandon.....	150	May 3..	156.05	Screw, pass., Kenora and Rainy river.
Scud.....		May 4..	33.05	Screw, tug, Lake of the Woods.
Island.....		May 9..	30.49	Screw, fish tug, Lake Winnipeg.
Highlander.....		May 9..	59.24	Screw, fish tug, Lake Winnipeg.
Balmoral.....		May 9..	36.93	Screw, fish tug, Lake Winnipeg.
Roddy.....		May 9..	14.10	Screw, fish tug, Lake Winnipeg.
City of Selkirk.....	75	May 9..	457.82	Screw, pass., Lake Winnipeg.
Premier.....	75	May 9..	413.99	Screw, pass., Lake Winnipeg.
Rocket.....		May 9..	56.61	Screw, tug, Lake Winnipeg.
Cygnets.....		May 10..	37.44	Screw, fish tug, Lake Winnipeg.
Tempest.....		May 10..	74.66	Screw, fish tug, Lake Winnipeg.
Lady of the Lake.....	20	May 10..	201.43	Screw, pass., Lake Winnipeg.
Chiefton.....	50	May 10..	60.85	Screw, pass., Lake Winnipeg.
Fisherman.....		May 10..	44.22	Screw, fish tug, Lake Winnipeg.
Wolverine.....	40	May 13..	278.32	Screw, pass., Lake Winnipeg.
Frank Burton.....		May 13..	93.74	Screw, survey boat, Lake Winnipeg.
Daisy.....		May 13..	26.33	Screw, tug, Lake Winnipeg.
Viking.....	10	May 12..	17.17	Screw, pass., Lake Winnipeg.
Princess.....	20	May 12..	405.44	Screw, pass., Lake Winnipeg.
Frederick.....		May 20..	35.77	Screw, fish tug, Lake Winnipeg.
Alert.....		May 20..	27.96	Screw, fish tug, Lake Winnipeg.
Fern.....		May 20..	16.68	Screw, fish tug, Lake Winnipeg.
Catherine S.....		May 22..	66.60	Screw, tug, Lake of the Woods.
Shamrock.....		May 22..	79.68	Screw, tug, Lake of the Woods.
Rambler.....		May 23..	19.04	Screw, tug, Lake of the Woods.
Ethel Banning.....		May 23..	37.54	Screw, tug, Lake of the Woods.
Idell.....		May 23..	53.92	Screw, tug, Lake Winnipeg.
Redwing.....		June 19..	23.14	Screw, patrol boat, Lake Winnipeg..
Alexander.....	250	June 20..	163.57	Stern wheel, Red river.
Wanderer.....		June 30..	20.38	Screw, fish tug, Lake of the Woods.
Sport.....	10	June 30..	16.26	Screw, pass., Winnipeg river.
Ethel.....	10	June 30..	20.20	Screw, pass., Lake of the Woods.
Mary Hatch.....		June 30..	121.18	Screw, tug, Lake of the Woods.
City of Selkirk.....		June 2..	67.54	Screw, tug, Rainy Lake.
Laura A.....	10	June 2..	25.64	Screw, pass., Rainy Lake.
Algoma.....		June 2..	68.59	Screw, tug, Rainy Lake.
Majestic.....	40	June 2..	135.22	Screw, pass., Rainy Lake.
Kingfisher.....		June 2..	76.74	Screw, tug, Rainy river.
Chiefton.....		June 5..	36.26	Screw, tug, Rainy river.
Monarch.....		June 5..	113.09	Paddle, tug, Lake of the Woods..
Standard.....		June 7..	15.78	Screw, fish, Lake of the Woods.
Daisy Moore.....		June 7..	38.31	Screw, tug, Lake of the Woods.
Rover.....		June 9..	7.82	Screw, fish tug, Lake of the Woods.
Majestic.....		June 19..	63.96	Screw, tug, Lake of the Woods.
J. M. Smith.....		June 21..	176.25	Screw, freight, Lake of the Woods.
Petrel.....	40	June 23..	167.68	Screw, pass., Lake Manitoba.
Marvyl.....		June 23..	225.07	Screw, freight, Lake Manitoba.
Iceland.....	Not issued.	33.70..		Screw, freight, Lake Manitoba.
Grace B.....		Not issued.	20.19	Screw, tug, Lake of the Woods.
Villeneuve.....	15	June 27..	27.58	Screw, pass., Winnipeg river.
Josie.....		June 29..	12.42	Screw, tug, Eagle lake.
Nora.....	20	June 29..	20.23	Screw, pass., Eagle lake..
Eagle.....		June 29..	11.76	Screw, fish tug, Eagle lake.
Wapiti.....		June 30..	18.11	Screw, yacht, Lake of the Woods.
Pastime.....		June 30..	14.82	Screw, yacht, Lake of the Woods.
Total.....			8,230.55	

G. P. PHILLIPS,
Steamboat Inspector.

STEAM VESSELS Inspected in Canada but Registered Elsewhere for the Year ended June 30, 1905.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1905.		\$ cts.	
Mable Bradshaw. . .	15	Aug. 18.	331.00	26 48	Screw, Port Arthur and Duluth.

G. P. PHILLIPS,
Steamboat Inspector.

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STEAM VESSELS not Inspected for the Year ended June 30, 1905.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION—*Concluded.*

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
William White.....	17.81	12.56	Screw, to be inspected.
Widgeon.....	7.45	6.09	Screw, not in commission.
Carrie L.....	14.50	7.99	Screw, not in commission.
Kate Marks.....	54.13	43.09	Screw, not in commission.
Gale.....	2.83	1.93	Screw, not in commission.
Annie Mc.....	13.42	11.10	Screw, not in commission.
Rambler.....	6.14	2.94	Screw, not in commission.
Ospray.....	21.12	13.97	Screw, to be inspected.
Mikado.....	24.92	16.86	Screw, to be inspected.
Cruiser.....	26.92	15.56	Screw, to be inspected.
Little Bobs.....	13.19	8.97	Screw, to be inspected.
Undine.....	9.46	6.44	Screw, to be inspected.
Sultana.....	3.35	2.38	Screw, to be inspected.
Dolphin.....	12.63	8.95	Screw, to be inspected.
Rosa May.....	3.60	1.74	Screw, not in commission.
Widgeon.....	2.21	1.56	Screw, not in commission.
William Cross.....	21.60	16.31	Screw, not in commission.
Minneola.....	9.20	5.90	Screw, to be inspected.
Irene.....	9.71	6.20	Screw, to be inspected.
Dolly.....	2.77	2.00	Screw, to be inspected.
Brothers.....	17.56	11.90	Screw, to be inspected.
D. L. Mather.....	103.23	70.27	Screw, to be inspected.
Welcome.....	26.23	24.64	Screw, to be inspected.
Margaret.....	5.79	3.92	Screw, to be inspected.
Agwinde.....	307.41	143.13	Paddle, not in commission.
D. A. Gordon.....	147.98	94.22	Screw, not in commission.
Beaver.....	34.15	32.22	Screw, not in commission.
Inza.....	3.69	2.69	Screw, not in commission.
Kenora.....	486.34	268.89	Screw, not in commission.
Wrigley.....	104.59	66.94	Screw, Mackenzie river.
Eva.....	49.82	28.44	Screw, Mackenzie river.
Cariboo.....	28.65	19.49	Screw, Mackenzie river.
St. Joseph.....	27.06	16.06	Screw, Mackenzie river.
St. Alphonse.....	24.94	14.92	Paddle, Slave river.
Primrose.....	8.90	6.06	Screw, Slave river.
St. Charles.....	28.79	19.50	Screw, Peace river.
Beaver.....	80.25	26.49	Paddle, Saskatchewan river.
Lillian B.....	6.05	3.78	Screw, Great Slave lake.
Mountain Bell.....	4.21	3.46	Screw, Banff.
Grahame.....	360.39	232.71	Paddle, Slave and Peace river.
Alpha.....	7.38	4.36	Screw, Slave and Peace river.
Total.....	2,150.35	1,287.13	

G. P. PHILLIPS,
Steamboat Inspector.

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1905, their Class and Horse power, whether of Wood or Iron; their Gross and Registered Tonnage; where built; and where and how employed.

WESTERN ONTARIO, TORONTO DIVISION.

Name of Vessel.	Horse power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and how employed.
Myrtle	2·13	Screw	Wood	9	6	Point Abino, O	Crystal Beach & Pt. Abino, p.
Thyra	8·66	"	"	34	23	Powkipsie, U.S.	Lake Ontario, pleasure y'ht
Caribou	43·76	"	"	597	371	Goderich, Ont.	Ow'n Sound & Ft. William, p.
Protector	94·54	"	Iron	181	123	Wilni'g'n, U.S.	Great Lakes, tug.
Haddington	84·37	"	Steel	1,603	1,010	Toronto, Ont..	" freight & pass.
J. M. Diver	17·06	"	Wood	48	33	Sarnia, Ont . .	" tug.
Star	2·13	"	"	13	9	Erie, U.S.	Lake Erie, fishing tug.
J. K. Secor	6·30	"	"	48	32	P. Clinton, U.S.	" "
Isaac Lincoln	41·63	"	"	375	165	Marine City "	Great Lakes, freight.
Edna K.	2·17	"	"	Register	not yet	produced	Lake Erie, fishing tug.
Marion	2·40	"	"	9	6	Sombra, Ont. . .	Sombra & vicinity, pass'g'r
China	80·60	"	Iron	1,554	867	Buffalo, U.S. . .	Montreal and Duluth.
Total	385·75			4,471	2,645		

J. DODDS,
Steamboat Inspector, Toronto, Ont.

WESTERN ONTARIO, TORONTO DIVISION.

Lakefield	2·04	Screw	Wood	33	22	Sparrow Lake.	Severn & Sparrow Lakes, pas
Ella M.	17·00	"	Steel	420	384	Welland, Ont.	Welland Canal, dredge.
Gossoon	6·00	"	Wood	15	10	St. Catharines	" tug.
Euphemia	4·80	"	"	29	20	P. Dalhousie, O	" "
Savona	4·16	"	"	32	22	Toronto, Ont..	Lakes at Huntsville, yacht.
Wahwaskesh	2·30	Paddle	"	10	12	Beer Lake, Ont	Deer Lake, tug.
Morinus	1·60	Screw	"	10	7	Port Carling, O	Muskoka Lakes, passenger.
Scudder	2·66	"	"	Register	not yet	produced	" pleasure y't
Sharon	6·00	"	"	14	9	Walker's Pt., O	" tug.
Phoebe	2·66	"	"	11	7	Kingston, Ont	" pleas an y't
Willouden	16·21	"	"	2	17	"	" "
Izaak Walton	2·66	"	"	Register	not yet	produced	" "
Holland & Graves	2·70	Paddle	"	30	19	Simcoe, Ont	French & Pickering Riv's, tug
Glenada	2·07	Screw	"	65	44	Magnetawan O	Burk's Falls & Ahmic Har- bour, tug.
Geneva	10·60	"	"	92	58	Orillia, Ont. . . .	Lake Couchiching, pass'g'r.
Island Queen	16·66	"	"	129	88	Bronty, O	Toronto & Island "
Total	100·52			915	719		

JAMES B. STEWART.
Steamboat Inspector, Toronto, Ont.

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1905, their Class and Horse-power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

WEST ONTARIO, COLLINGWOOD DIVISION.

Name of Vessels.	Horse power.	Class.	Wood, Iron, or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
Wahnapitae....	37·5	Screw	Wood ...	153	95	Penetang., Ont.	Georgian Bay, tug.
Geyser	16·6	"	"	47	32	West Bay City Mich., U.S.	" "
Ina.....	1·7	"	"	27	18	Parry Sd., Ont.	" "
Arthur Mac....	11·2	"	"	68	35	Owen Sd., Ont.	" fishing tug.
Westmount....	167·6	"	Steel.....	1,875	1,170	Wallsend on Tyne G.B....	Duluth & Quebec, freight.
Fairmount.....	167·6	"	"	1,895	1,184	" "	" "
Total.	403·4			4,075	2,542		

E. W. McKEAN,
Steamboat Inspector, Collingwood, Ont.

EAST ONTARIO, KINGSTON DIVISION.

Stoney Lake...	13·50	Screw ...	Wood ...	155·82	109·07	Youngs P., Ont.	Cos. Vict. & Peterb'ro, pas.
Wawinet	9·95	"	"	67·90	46 18	Toronto, Ont..	Kawartha Lakes, pl. yacht.
St. Charles	2·13	"	"	26·44	17·98	Peterboro, Ont.	Otonabee Riv., steam p. tug.
Aileen.....	4·34	"	"	24 00	15·60	Perth, Ont....	Kingston & Ottawa, passen.
Kathleen.....	6·00	"	"	37·36	25·96	Lindsay, Ont..	Cos. Vict. & Peterb'ro, pas.
John Randall..	13·59	"	Composite	194·45	94·88	Kingston, Ont.	Kingston & Ottawa, freight.
Vacuna.....	6·45	"	Wood	51·77	35·21	Bristol, Rhode Island, U.S.	Riv. St. Lawrence, pleasure yacht.
Spray.....	1·20	"	"	12·81	8·70	Watertown, N. Y.	Lake Temagami and tribu- taries, passenger.
Total.	57·07			570·55	353·58		

THOS P. THOMPSON,
Steamboat Inspector, Kingston, Ont.

MONTREAL DIVISION.

Idler	4·2	St'rnwheel	Wood	51	32	Hawkesbury..	Ottawa River, tug.
Lady Minto....	61 3	Paddle ...	Steel.. ...	403	254	Temiskaming.	" "
Alert.....	10·6	Screw	"	53	26	" "	" "
Pocahontas ...	12·3	"	Wood	56	38	North Hatley.	Massawippi Lake, passeng.
Elsie.....	3 8	"	"	7	5	Georgeville. ..	Mempremagog Lake, pass.
Argo.....	24·5	"	"	95	75	Turtle Portage	North River, tug.
Total.	116·7			665	430		

WM. LAURIE,
Steamboat Inspector, Montreal, P.Q.

5-6 EDWARD VII., A. 1906

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1905, their Class and Horse-power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

SOREL DIVISION.

Name of Vessel.	Horse power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
Alph'nse Racine	42·66	Screw tug.	Steel.....	121·18	68·87	Sorel.	Montreal Harbour, tug boat

ALEXIS RONDEAU,
Steamboat Inspector, Sorel, P.Q.

QUEBEC DIVISION.

Fraserville . . .	16·06	Screw....	Steel.. . .	51·00	34·54	Riv. du Loup, 1904.	Tug and passenger, River du Loup.
Harold.....	1·02	"	Wood.....	7·18	5·89	Is. of Orleans, 1904.	Tug, Lake Kiskising.
Marie Stella...	10·66	"	"	23·67	16·08	St. Alexis, 1905	Tug, Saguenay River.
Total . . .	28·46			81·85	56·51		

JOS. SAMSON,
Steamboat Inspector, Quebec, P.Q.

NOVA SCOTIA DIVISION.

Ethel Jean . . .	16·60	Screw..	Wood.....	47·06	32·68	Ship Harbour, N.S.	Tug, coasting.
Hiawatha.....	8·28	"	"	49·19	34·36	Pictou, N.S.	Passenger, Pictou Harbour.
Victoria.	4·60	"	"	67·65	40·21	Pugwash, N.S.	Tug, coasting.
Baines Hawkins	96·00	"	Iron.....	703·28	434·67	Blythe, G.B.	Freight, coasting.
Togo.....	33·30	"	Wood.....	97·31	65·99	Dartm'th, N.S.	Tug and passenger, coasting
Isaac N. Veasey	7·50	"	"	88·96	60·49	Roanoke, U.S.	Fishing, coasting.
Mahone	24·00	"	"	126·70	78·99	A. Mahone Bay, N.S.	Passenger, coasting.
Defiance	13·60	"	"	37·79	25·70	Shelburne, N.S.	Tug, coasting.
Dufferin. . . .	41·60	"	"	210·57	98·93	"	Passenger, coasting.
Prince Albert..	24·00	"	"	126·73	64·36	"	"
Inverness	18·24	"	"	66·98	45·55	West Mystic, U.S.A.	"
Richmond.....	20·50	"	"	162·30	105·12	Sydney, N.S.	"
Mersey... . . .	16·07	"	"	41·62	28·30	Liverpool, N.S.	Tug and passenger, coasting.
Total	324·29			1826·14	1115·35		

J. P. ESDAILE,
Steamboat Inspector, Halifax, N.S.

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1905, their Class and Horse-power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

Name of Vessel.	Horse power.	Class	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
Kilkeel.....	42·6	Screw.....	Iron.....	252·27	55·97	Paisley, G.B..	Freight boat, Parrsboro and coasting.
James Neilson.	8·7	"	Wood ...	30·50	20·74	Chatham, N.B	Tug, Miramichi River.
Pokanoket.....	32·32	T. screw..	Steel.	489·63	332·30	Philadelphia, U.S.A.	Passenger and freight, St. John River.
Daniel.....	12·00	Screw.....	Wood	28·81	19·60	St. John, N.B.	Tug, St. John River.
Lady Eileen...	104·4	T. screw..	Steel,	920·72	526·35	Port Glasgow, G.B.	Pass. and freight, coasting, Baie de Chaleur.
Marshall W ..	4·1	Screw.....	Wood	5·52	3·75	Chatham, N.B	Tug, Miramichi River.
Success.....	5·4	Paddle....	"	20·54	12·94	Burnt Church, N.B.	" " "
Lord Wolsley..	16·0	Screw. ...	"	72·91	49·63	Parrsboro, N.S	" St. John River and coasting.
Champlain. ..	28·0	"	" ...	392·46	266·00	Rebuilt 1904, St. John, N.B	Passenger and freight, St. John River.
	253·52			2,213·36	1,287·28		

C. E. DALTON,
Steamboat Inspector, St. John, N.B.

BRITISH COLUMBIA DIVISION.

St. George...	33·0	Screw.....	Composite	544·22	370·07	Vancouver, B.C.	Burrard Inlet, ferry.
Shamrock.	4·3	"	Wood. ...	23·83	14·00	Victoria, B.C.	Inland waters, B.C., towing
Iris.	6·4	"	"	58·47	39·77	Vancouver, B.C.	" fgt. and pass.
Royal City ..	20·6	"	Steel.	38·38	22·50	London, Eng.	" towing.
Adam Hall....	26·0	T. screw..	Wood. ...	144·61	54·86	Arrowhead, B.C.	Columbia River, towing.
Enterprise.....	2·1	Screw.....	"	20·00	13·60	Pilot Bay, B.C	Kootenay Lake, towing.
Albatross.....	20·6	"	Steel. ...	37·87	25·76	London, Eng.	Inland waters, B.C., towing
	113·0			867·38	540·56		

J. A. THOMSON,
Steamboat Inspector, Victoria, B.C.

5-6 EDWARD VII., A. 1906

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1905, their Class and Horse Power, whether of Wood or Iron : their Gross and Registered Tonnage, where built ; and where and how employed.

VANCOUVER AND YUKON DIVISION.

Name of Vessel.	Horse power.	Class	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
Linda.	9·1	Screw.	Wood.	37	25	Vancouver....	B. C. waters, tug.
Edna.	5 6	"	"	18	12	"	"
Burrard.	10 0	"	"	56	38	"	"
Belle.	16·0	"	"	94	64	"	"
Le Roi.	51·5	"	"	196	133	"	"
Sea Lion ..	52·2	"	"	218	148	"	"
Gypsy	6·8	"	"	27	18	"	"
Elsie.	1·6	"	"	16	11	"	"
Peerless,	39·1	"	"	128	88	New Westm'r.	"
Clutha.	2 7	"	"	28	19	"	"
Isaac ..	5·6	"	"	8	6	Port Guichon.	"
Hope.	8·1	"	"	26	18	Richardson, U.S.A.	"
Alert.	1·2	"	"	12	8	Not known...	"
Constance...	10·1	"	"	23	16	"	"
Sonoma.	3·1	"	"	19	13	Vancouver....	passenger
McCulloch....	12·9	"	"	39	27	"	freight.
Jessie Mac.	9·0	"	"	57	39	"	"
Belfast... ..	15·4	"	"	105	72	"	"
Heneritta....	32·0	T. screw..	Iron.	763	518	Not known...	Foreign pass. and freight.
Vesta.	2·1	Screw.	Wood.	12	7	Port Simpson.	B. C. waters, yacht.
Lora.	0·8	"	"	8	5	Vancouver....	Fraser River, tug.
May.	1 6	Gas. screw	"	8	5	"	B. C. waters, passenger.
Beaver.	4 2	Screw.	"	20	13	"	"
	300·7			1,907	1,303		

F. M. RICHARDSON,
Steamboat Inspector, Vancouver, B.C.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES.

J. M. Smith...	8·0	Stern pad.	Wood.	179·25	121·89	Winnipeg, Man.	Freight, Red River.
Marvyl.	16·0	T. screw..	"	225·07	153·05	The Landing, Man.	" Lake Manitoba.
Iceland.	1·2	Screw.	"	33·70	22·92	The Landing, Man.	"
Laura A.	7·0	"	"	25·64	17·44	Fort Francis..	" and passenger, Rainy Lake.
Kingfisher....	17·0	"	Composite	76·74	52·19	Kenora.	Tug, Lake of the Woods.
Majestic.	4·8	"	Wood.	63·96	43·51	.....	" Lake Winnipeg.
Alert.	8·0	"	"	27·96	18·75	Selkirk, Man..	"
Dispatch	1·2	"	"	12·66	8 61	"	" Cedar Lake.
Assiniboine ...	8·0	Stern pad.	"	97·76	40·93	Meosejaw, N.W.T.	"
Eagle.	1·7	Screw.	"	11·76	8·00	Kenora.	" Eagle Lake.
Carbarry	6·6	T. screw..	"	61·78	41·02	The Landing, Man.	" Lake Manitoba.
Frederick.....	10·6	Screw.	"	35·77	26·75	Selkirk, Man.	" Lake Winnipeg.
	100·1			852·08	555·06		

GEO. P. PHILLIPS,
Steamboat Inspector, Kenora, Ont.

SESSIONAL PAPER No. 21

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion during the year ended June 30, 1905, and where and how employed.

WESTERN ONTARIO DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Ocean.	Lakes, passenger.....	684	Screw, burned.
Island Queen.	Toronto Bay, passenger.	23	" dismantled.
Longford.	Lake Simcoe "	53	" "
Ivey Anderson.	Lake Erie, fishing tug.....	39	" "
Jubilee.	" "	10	" "
Linnia.	Muskoka Lakes, fishing tug...	5	" "
Minnie F. Parsons.	Lakes and rivers "	46	" "
Nautilus.	Welland Canal "	9	" "
Bruce.	Georgian Bay "	16	" "
		885	

JOHN DODDS,
J. B. STEWART,
Steamboat Inspectors, Toronto, Ont.

COLLINGWOOD DIVISION.

Ripple.	Georgian Bay, tug.....	15	Screw, dismantled.
Bruce.	" "	16	" "
Crocle.	" "	21	" burned.
Island Belle.	" "	31	" dismantled.
City of Collingwood.....	Georgian Bay, passenger ...	1,387	" burned.
		1,470	

E. W. McKEAN,
Steamboat Inspector, Collingwood, Ont.

EAST ONTARIO DIVISION.

Greyhound.	Lindsay, Ont., passenger.	37.35	Screw, hull used up.
John Milne.	Rideau Canal, freight.	108.53	" "
Rambler.	Lindsay, Ont., tug.....	8.75	Paddle "
King Ben.	River St. Lawrence, freight....	145.36	Screw "
		299.99	

THOS. P. THOMPSON,
Steamboat Inspector, Kingston, Ont.

MONTREAL DIVISION.

Dauntless.	Lake, tug.	81	Screw, wrecked.
Ladas.	"	54	" dismantled.
Marquis of Lorne.	River, passenger.....	20	" "
Juno.	" yacht.	17	" "
Argo.	" passenger.....	95	" destroyed by fire.
		267	

WM. LAURIE,
LOUIS ARPIN,
Steamboat Inspectors, Montreal, Que.

5-6 EDWARD VII., A. 1906

STATEMENT of Steam Vessels lost, broken or laid up, &c.—Continued.

SOREL, P.Q., DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Florence.....	Grand Piles da la Tuque Pas-sengers.....	17 77	Screw laid up for repairs.
St. Francis.....	River St. Lawrence attending dredge	55 00	" broken up.
		73 79	

A. RONDEAU,
Steamboat Inspector, Sorel, P.Q.

QUEBEC DIVISION.

Charlevoix.....	Freight, Montreal and Quebec.	212	Screw engine taken out.
Relief .. .	Tug, Montreal and Gulf.....	381	" "
Alaska.....	Lighter, Quebec Harbour.....	51	" "
St. Lawrence.....	Passenger, Quebec and Gulf....	432	Screw stranded and broken up
Admiral	" Dalhousie and Gaspé	682	
		1,758	

JOS. SAMSON.
Steamboat Inspector, Quebec, P.Q.

NOVA SCOTIA DIVISION.

Messenger.....	Yarmouth and coast, passenger.	126 73	Screw, name changed.
Helen May Butler.....	Halifax and coast, freight	66 98	" "
Vega.....	Mulgrave and Sydney, pass. ..	162 30	" rebuilt and name cha'gd.
St. Michael.....	Liverpool and shore, port., pass	41 62	" " "
		397 63	

J. P. ESDAILE.
Steamboat Inspector, Halifax, N.S.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

Amanda Green.....	St. John River, towing.....	19 63	Hull condemned. machinery taken out.
Wee Laddie.....	" "	16 60	" " "
		36 23	

C. E. DALTON.
Steamboat Inspector, St. John, N.B.

SESSIONAL PAPER No. 21

STATEMENT of Steam Vessels lost, broken up or laid up, &c.—*Continued.*

BRITISH COLUMBIA.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Manauense.....	Freight, North Pacific.....	1,672·09	Screw, wrecked Siberian coast.
Wyefield.....	" " "	3,234·59	" captured Japanese fleet.
M. S. Dollar.	" " "	4,216·00	" " "
Ba Boscowitz	Freight and pass., B.C. waters.	337·92	" wrecked, Northern coast, B.C.
Nell.....	" " "	207·97	T. screw, burnt, total loss.
		9,668·57	

J. A. THOMSON,
Steamboat Inspector, Victoria, B.C.

BRITISH COLUMBIA AND YUKON.

Iris.....	B.C. waters, freight and pass..	40	Screw, sunk.
Columbia.....	" fishing.....	250	" " "
Comet.....	" tug and passeng..	85	" wrecked.
Esperenza.....	Fraser River, tug..	31	" dismantled.
		406	

F. M. RICHARDSON,
Steamboat Inspector, Vancouver, B.C.

KEEWATIN, MANITOBA AND N.W.T.

W. S. Ireland.....	Lake Superior, freight	104·94	Screw, hull converted into barge
Gordon M	Rainy Lake, tug....	3·01	" " condemned.
Mohican.....	" " "	34·20	" " "
Caro.....	Eagle Lake "	14·47	" " "
Gen.	" " "	11·08	" " "
		167·70	

GEO. P. PHILLIPS,
Steamboat Inspector, Kenora, Ont.

LIST of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats during the Year ended June 30, 1905.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1904.					\$ cts.
3703	July 6..	Benjamin Harvey.....	Temporary ...	Lake Edward, Que.....	L'keEdward,Q	2 00
3704	" 6..	Malcolm Wilson.....	"	Sechelt, B.C.....	Vancouver,BC	2 00
3705	" 11..	Andrew Leitch.....	2nd class U.K.	Halifax, N.S.....	Halifax, N.S..	5 00
3706	" 11..	Thos. Naas.	Temporary ...	Lunenburg, N.S.....	Halifax, N.S..	2 00
					Severn Bridge,	
3707	" 11..	A. F. Stanton.. ..	"	Severn Bridge, Ont.	Ont	2 00
3708	" 11..	Hebt. R. Stevens.	"	Dorset, Ont.....	Toronto, Ont .	2 00
3709	" 11..	Thos. N. Jeffery.	"	Gravenhurst, Ont.	Bracebridge, O	2 00
3710	" 11..	S. A. Foy	"	Alberni.....	Victoria, B.C.	2 00
3711	" 11..	Wm. Wilson.....	4th class....	Victoria, B.C.....	"	5 00
3712	" 11..	John Smith.....	"	Vancouver, B.C.....	Vancouver,BC	5 00
3713	" 11..	John Seaman	3rd class....	Selkirk, Man.....	Selkirk, Man .	5 00
					Sturgeon Falls,	
3714	" 11..	Geo. Laroque	Temporary ...	Sturgeon Falls, Ont.	Ont	2 00
3715	" 11..	Martin Grafer.....	"	Pembroke, Ont.....	Pembroke, Ont	2 00
3716	" 11..	Fredk. Windsor.....	"	Callander, Ont.....	Callander, Ont	2 00
3717	" 18..	Wm. John Poole.	"	Pooles Resort, Ont.....	Kingston, Ont	2 00
3718	" 18..	Frederick Huck.....	"	Rockport, Ont.....	"	2 00
3719	" 18..	John J. Kinimond.....	"	Gananoque, Ont	"	2 00
3720	" 18..	Thos. Hazlett.....	"	Kingston, Ont.....	"	2 00
3721	" 18..	Andrew Lejeunesse.....	"	Gore's Landing, Ont ..	Peterboro, Ont	2 00
3722	" 18..	Manly Cross.....	"	Gananoque, Ont.....	Kingston, Ont	2 00
3723	" 18..	Chas. F. Funnell.....	"	Gananoque, Ont.....	"	2 00
3724	" 23..	Ed. Chas. David.....	"	Corunna, Ont.	Sarnia, Ont...	2 00
3725	" 23..	John W. Haun.....	"	Ridgeway, Ont.	Toronto, Ont .	2 00
3726	" 23..	Ed. Theo. Allen.....	4th class....	Sault St. Marie, Ont....	S'l'tSteMarie O	5 00
3727	" 23..	Robert F. Hill.....	4th "	Sault St. Marie, Ont ..	"	5 00
3728	" 23..	George S. Biggar.	3rd "	Warton, Ont.....	Warton, Ont.	5 00
3729	" 23..	Fredk. Windsor.....	3rd "	Callander, Ont.....	Wisawasa, Ont	5 00
3730	" 23..	Andrew T. Brown.....	3rd "	Vancouver, B.C.....	Vancouver,BC	5 00
3731	Aug. 10..	Robt. W. Eldridge.	Temporary ...	Rat Portage, Ont.....	Rat Portage, O	2 00
3732	" 10..	James Clark.....	"	Little Current, Ont.....	French RiverO	2 00
3733	" 10..	John E. Willis.....	"	Parry Sound, Ont....	Parry Sound,O	2 00
3734	" 10..	Harry Jukes.	"	Parry Sound, Ont.....	"	2 00
3735	" 10..	Henri Delisle	"	Ste. Croix, Que.....	Montreal, Que.	2 00
3736	" 10..	Daniel O'Connell.....	"	Belleville, Ont.....	Belleville, Ont.	2 00
3737	" 10..	Chas. W. Bowerman ..	"	Port Perry, Ont.....	Lindsay, Ont .	2 00
					St. Gideon	
3738	" 10..	Joseph Nadeau.....	"	St. Gedeon Lake, Que. .	Lake, Ont...	2 00
					Ste. Anne Chi-	
3739	" 10..	Joseph Gagnon.....	"	St. Anne Chicoutimi, Que	coutimi, Que	2 00
3740	" 10..	J. Chapdelaine.	"	Sorel, Que.....	Montreal, Que	2 00
3741	" 10..	Demas Belanger.....	"	Montreal, Que.....	Montreal, Que	2 00
3742	" 10..	F. M. S. Webber.....	"	Orillia, Ont.	Severn, Ont...	2 00
3743	" 10..	George Dixon.	4th Class....	Halifax, N.S.....	Halifax, N.S..	5 00
3744	" 13..	Alfred Perreault.....	Temporary ...	Mistassini, Que.....	Roberval, Q...	2 00
3745	" 13..	Frederic Masters	"	Niagara on the Lake Ont.	Niagara, Ont.	2 00
3746	Sept. 6..	Robert Andrews.....	2nd class, U.K.	Venezula	St. John, N.B.	10 00
3747	" 6..	Richard Trist.....	Temporary ..	Doyden, Ont.....	Doyden, Ont..	2 00
3748	" 6..	John A. Camber.....	"	Georgeville, Que	Georgeville, Q.	2 00
3749	" 6..	Peter Brow.....	"	Lake Megantic.....	Lake Megantic	2 00
3750	" 6..	George Willis.....	"	Howick, Ont.....	New Liskeard.	2 00
3751	" 6..	Ernest H. York.....	"	Morewood, Ont.....	"	2 00
3752	" 6..	John Burns.....	"	Temiskaming.....	N. Temiskam	2 00
3753	" 6..	Wm. Hungerford.....	"	Lindsay, Ont.....	Lindsay, Ont.	2 00
3754	" 6..	Thos. Robson.	"	Fenelon Falls, Ont.....	Fenelon F., O.	2 00
3755	" 6..	Wm. Powles.	"	Tyendinaga, Ont.....	Kingston, Ont.	2 00
3756	" 6..	Philias Dery.....	"	Mistassini, Que.....	Roberval.....	2 00
3757	" 6..	Peter G. Cavanagh. .	"	Perth, Ont.....	Kingston, Ont.	2 00
3758	" 6..	Joseph Breekon.....	"	Orillia, Ont.....	Orillia, Ont...	2 00
3759	" 6..	Wilbert C. Harris.....	"	Gore's Landing	Kingston, Ont-	2 00
3760	" 6..	Albert Wright.....	"	Rat Portage, Ont.....	Rat Portage,O	2 00
3761	" 9..	Henry R. Annett.....	"	Peninsula, Gaspe.....	Gaspe, Que	2 00
3762	" 13..	Jos. Villeneuve	"	Rat Portage, Ont.. .	Rat Portage,O	2 00

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List of Certificates of Competency granted to Engineers of Steamboats, &c.—Continued.

No. of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1904.					\$ cts.
3763	Sept. 26..	John Andrechek	Temporary ...	Killaloo Station, Ont....	N. Liskeard. Q	2 00
3764	" 26..	Douglas McKenzie.....	4th Class.....	Goderich, Ont.	Midland, Ont.	5 00
3765	" 26..	Geo. A. Gropp.....	Temporary ...	Penetanguishene, Ont...	Penetanguish.	2 00
3766	" 26..	Geo. Wm. Jolimok.....	"	Pictou, N.S.....	Halifax, N.S.	2 00
3767	" 29..	Levy McMillan.....	2nd class, U.K.	Sherbrooke, N S	Quebec.....	5 00
3768	" 29..	M. Archambault.....	Temporary ...	Bout de l'Isle, Que.....	Montreal, Q...	2 00
3769	" 29..	Merille Larocque	"	Point Fortune, Que.. ...	"	2 00
3770	" 29..	John A. Cook.....	"	Grenville, Que.....	Ha'kesbury NS	2 00
3771	" 30..	John R. Brown	"	Parry Sound, Ont.....	Toronto, Ont.	2 00
3772	Oct. 10..	James Cobain.....	3rd Class.	Dawson, Y.T.....	Dawson, Y.T.	5 00
3773	" 10..	Thomas Braxier	3rd "	Work Pt., Victoria, B.C.	Victoria, B.C.	5 00
3774	" 10..	Alphonse Samson.....	2nd "	Village Lauzon.....	Quebec, Que..	5 00
3775	" 10..	Frank Rush.....	Temporary ...	70 Main St., St. John.	St. John, N.B.	2 00
3776	" 10..	W. S. Prescott.....	"	Dawson, Y.T....	Dawson, Y.T.	2 00
3777	" 10..	John Van Koenig.....	4th Class	34 D'Artigny St., Que..	Quebec, Que.	5 00
3778	" 10..	Charles A. Hill.....	4th "	Windsor, Ont.....	Windsor, Ont.	5 00
3779	" 10..	Charles R. McClean	2nd " U.K.	Brooklyn, N.Y.....	Quebec, Que..	5 00
3780	" 10..	Chas E. Staples.....	3rd "	Vancouver, B.C.....	Victoria, B.C.	5 00
3781	" 10..	M. Bordeleau.....	3rd "	Roberval, Que.....	Roberval, Q..	5 00
3782	" 18..	Wm. Allanson.....	Temporary ...	Rat Portage, Ont.....	Rat Portage, O	2 00
3783	" 18..	Edouard Cloutier.....	"	Sorel, Que.	Lachine, Que.	2 00
3784	" 20..	Adjutor Gendron.....	4th Class	Lambton.....	Quebec.....	5 00
3785	" 20..	O. Hamelen	4th "	Three Rivers, Que.. ...	Quebec.....	5 00
3786	" 20..	Chas. R. Andrew.....	Temporary ...	Lake Megantic, Que	L. Megantic, Q	2 00
3787	" 27..	Joseph A. Samson.....	2nd class, U.K.	Village Bienville, Que..	Sorel, Que....	5 00
3788	Nov. 2..	Frank L. Willis	4th "	St. John, N.B.....	St. John, N.B.	5 00
3789	" 2..	Frank Parcher.....	Temporary ...	Combermere, Ont.....	Barry's Bay, O	2 00
3790	" 2..	Napoleon Morin.....	"	Turtle Portage, Que.....	Kippewa.	2 00
3791	" 2..	Wm. S. Gale	"	Sombra, Ont.....	Sombra, Ont..	2 00
3792	" 10..	Geo. E. McColman.....	4th Class	Thessalon, Ont.....	Thessalon, O..	5 00
3793	" 14..	Joseph Cantin....	3rd "	Village Bienville, Que..	Quebec.	5 00
3794	" 16..	H. E. Bowles	4th "	Randolph P.O., Ont.....	Midland, Ont.	5 00
3795	" 19..	John S. Kinnee.....	4th "	Victoria Harbour, Ont..	Victoria, B.O.	5 00
3796	" 29..	P. Villeneuve.....	4th "	Roberval, Que.. ...	Quebec.	5 00
3797	" 29..	Fredk. G. Flesher.....	4th "	Cutler, Ont	Outler, Ont...	5 00
3798	Dec. 1..	John H. Kennedy.....	Temporary ...	Wine Harbour, N.S....	Halifax, N.S.	2 00
3799	" 3..	James Wm. Wier.....	4th Class	Sydney, C.B.	"	5 00
3800	" 6..	Saml R. Roberts.....	2nd " U.K.	Victoria, B.C.....	Victoria, B.C.	5 00
3801	" 6..	Henry M. Sallaway	3rd "	"	"	5 00
3802	" 6..	John McRae.....	4th "	"	"	5 00
3803	" 6..	Emil Johnson.....	4th class	New Westminster, B.C.	Vancouver. B.C.....	5 00
3804	" 6..	Francis Honour.....	3rd "	"	"	5 00
3805	" 10..	Joseph Duquet.....	4th "	Bienville Village, Que..	Quebec, Que..	5 00
3806	" 10..	John J. Davies.....	3rd "	Charlestown, P.E.I....	St. John, N.B	5 00
3807	" 10..	Wyle Spicer.....	3rd "	Spicer's Island, N.S....	"	5 00
3808	" 10..	A. C. Leishman.....	3rd "	Chatham, N.B	"	5 00
3809	" 10..	David A. Sinclair.....	3rd "	Kingston, Ont.....	Kingston, Ont	5 00
3810	" 16..	Duncan Andrews.....	2nd class U.K	Bellevue Road, England.	St. John, N.B	5 00
3811	" 16..	Frederick Spain.....	2nd "	Windsor, Ont	Toronto, Ont..	5 00
3812	" 16..	B. Sauvageau.....	4th "	Champlain, Que.....	Montreal, Que	5 00
3813	" 16..	Pierre Gouin.....	4th "	Lachine, Que	"	5 00
3814	" 31..	John Leonard.....	Temporary ...	St. John, N.B.....	St. John, N.B	2 00
3815	" 31..	Joseph Blanchet.....	2nd class....	Lauzon Village, Que....	Quebec, Que..	5 00
3816	" 31..	A. Desrochers.....	4th "	St. Croix, Que.....	"	5 00
3817	" 31..	E. Desrochers	3rd "	"	"	5 00
3818	" 31..	Arthur Abbey	3rd "	Toronto, Ont.....	Toronto, Ont..	5 00
3819	" 31..	M. L. Campbell.....	4th "	Owen Sound, Ont.	"	5 00
3820	" 31..	Simon Stewart.	4th "	Selkirk, Man.....	Selkirk, Man	5 00
3821	" 31..	Chris. Watterson.....	3rd "	"	"	5 00
1905.						
3822	Jan. 9..	R. Denniston	3rd "	Victoria, B.C.....	Victoria, B.C.	5 00
3823	" 9..	William Jacobs	3rd "	Nelson, B.C.....	"	5 00
3824	" 9..	Geo. W. Brown.....	3rd "	Victoria, B.C.....	"	5 00

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List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Continued.*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1905.					\$ cts.
3825	Jan. 9.	J. A. Crepeau	2nd class	Sorel, Que.	Sorel, Que.	5 00
3826	" 10.	A. E. Kennedy	3rd "	Kingston, Ont.	Kingston, Ont.	5 00
3827	" 10.	F. J. Bearance	4th "	"	"	5 00
3828	" 13.	R. Cunningham	4th "	Amherst, N.S.	Halifax, N.S.	5 00
3829	" 13.	Jos. M. McLeod	4th "	Collingwood, Ont.	Collingwood, Ont.	5 00
3830	" 13.	John Baikie	4th "	"	"	
3831	" 13.	A. Charbonneau	4th "	Sorel, Que.	Sorel, Que.	5 00
3832	" 13.	Jas. W. Hazlett, jr	3rd "	Kingston, Ont.	Kingston, Ont.	5 00
3833	" 18.	Frederick Moynes	Temporary	Lindsay, Ont.	"	2 00
3834	" 18.	Nap. Ethier	3rd class	Quebec, Que.	Quebec, Que.	5 00
3835	" 18.	John T. Myler	2nd "	Collingwood, Ont.	Collingwood, Ont.	5 00
3836	" 18.	Geo. Caister	2nd "	Windsor, Ont.	Toronto, Ont.	5 00
3837	" 18.	I. J. Noonan	3rd "	Hamilton, Ont.	"	5 00
3838	" 18.	Emery Scott	4th "	Picton, Ont.	Kingston, Ont.	5 00
3839	" 18.	Richard McLaren	3rd "	Owen Sound, Ont.	Collingwood, Ont.	5 00
3840	" 18.	F. W. Rowland	4th "	Collingwood, Ont.	"	5 00
3841	" 23.	Leonard Rumley	3rd "	Meaford, Ont.	Midland, Ont.	
3842	" 23.	Ernest Cantin	4th "	Bienville Village, Ont.	Quebec, Que.	5 00
3843	" 23.	Jos. Guinard	3rd "	Lauzon Village, Que.	"	5 00
3844	" 23.	Jas. D. Walker	4th "	Trenton, Ont.	Kingston, Ont.	5 00
3845	" 23.	Luc Beaudoin	2nd "	Lauzon Village, Que.	Quebec, Que.	5 00
3846	Feb. 10.	T. W. Whiteley	Temporary	Sombra, Ont.	Sombra, Ont.	2 00
3847	" 10.	Jos. Bonner	3rd class	Sarnia, Ont.	Toronto, Ont.	5 00
3848	" 10.	Chas. Le Riche	3rd "	Toronto, Ont.	"	5 00
3849	" 10.	Jas. C. Barry	4th "	Lefroy P.O., Ont.	"	5 00
3850	" 10.	Wm. A. Kennedy	4th "	Toronto, Ont.	"	5 00
3851	" 14.	Thos. Hazlett	3rd "	Collingwood, Ont.	Kingston, Ont.	5 00
3852	" 14.	Geo. Toppings	4th "	Deseronto, Ont.	"	5 00
3853	" 14.	J. A. Silverthorn	3rd "	Midland, Ont.	Collingwood, Ont.	5 00
3854	" 14.	H. H. Barrow	4th "	Vancouver, B.C.	Victoria, B.C.	5 00
3855	" 14.	G. W. McDonald	4th "	Penetanguishene, Ont.	Collingwood, Ont.	5 00
3856	" 14.	W. Chipman	4th "	Brockville, Ont.	Kingston, Ont.	5 00
3857	" 14.	F. A. Collier	4th "	Picton, Ont.	"	5 00
3858	" 14.	Geo. Hazlett	2nd "	Kingston, Ont.	"	5 00
3859	" 14.	G. M. Briggs	4th "	Brockville, Ont.	"	5 00
3860	" 14.	A. R. Barrow	Temporary	Victoria, B.C.	Victoria, B.C.	2 00
3861	" 14.	Jas. W. Wedlock	Temporary	Bensfort P.O., Ont.	Kingston, Ont.	2 00
3862	" 14.	Wm. Burgoyne	"	Fenelon Falls, Ont.	"	2 00
3863	" 16.	Thos. Matte	2nd Class	Sorel, Que.	Sorel, Que.	5 00
3864	" 16.	Jos. Laviolette	3rd "	"	"	5 00
3865	" 16.	A. St. Martin	3rd "	St. Joseph, Sorel, Que.	"	5 00
3866	" 16.	Duncan Gunn	2nd "	Moncton, N.B.	St. John, N.B.	5 00
3867	" 16.	Wm. P. Cowie	3rd "	St. John, N.B.	"	5 00
3868	" 16.	J. C. Hutchison	3rd "	"	"	5 00
3869	" 16.	Jas. A. Dickens	3rd "	Chatham, N.B.	"	5 00
3870	Mar. 2.	Jean Royer	4th "	Village Bienville, Que.	Quebec, Que.	5 00
3871	" 2.	J. M. Beaudette	4th "	St. Jean des Chaillons, Q	"	5 00
3872	" 2.	F. X. Legendre	4th "	St. Antoine de Tilly, Que	"	5 00
3873	" 2.	E. Ouzilleau	4th "	Village Lauzon, Que	"	5 00
3874	" 2.	A. Labarre	4th "	"	"	5 00
3875	" 2.	A. Ouzilleau	3rd "	"	"	5 00
3876	" 2.	A. Carrier	3rd "	"	"	5 00
3877	" 2.	Alexandre Boie	3rd "	Murray Bay, Que.	"	5 00
3878	" 2.	O. Lafleur	3rd "	Lotbinière, Que.	"	5 00
3879	" 2.	Noé Chartier	3rd "	Champlain, Que	"	5 00
3880	" 2.	Sam'l Lafleur	3rd "	St. Antoine de Tilly, Que	"	5 00
3881	" 2.	Jeffrey Roe	3rd "	Village Lauzon, Que.	"	5 00
3882	" 2.	Frank Moyle	4th "	Morrisburg, Ont.	Kingston, Ont.	5 00
3883	" 2.	Geo. Jarrell	4th "	Kingston, Ont.	"	5 00
3884	" 2.	A. J. Kenny	4th "	Owen Sound, Ont.	Collingwood, O	5 00
3885	" 2.	W. T. Ramsay	4th "	Sault St. Marie, Ont.	Sault St. Marie	5 00

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List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Concluded.*

No. of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1905.					\$ cts.
3886	Mar. 2	W. H. Durham	1st Class	Homer, Ont.	Toronto, Ont.	5 00
3887	" 2	R. W. Hepburn	3rd "	Kingston, Ont.	Kingston, Ont	5 00
3888	" 2	R. J. Muchmore	3rd "	"	"	5 00
3889	" 2	A. M. Teskey	4th "	Toronto, Ont	Toronto, Ont.	5 00
3890	" 2	Thos. A. Murray	4th "	Lowville, Ont.	"	5 00
3891	" 2	Geo. E. Down	4th "	Sarnia, Ont.	Toronto, Ont.	5 00
3892	" 2	David Smith	3rd "	Rat Portage, Ont.	Rat Portage, O	5 00
3893	" 2	Ronald F. Sink	Temporary	Gravenhurst, Ont.	Toronto, Ont.	2 00
3894	" 2	Albert Martin	"	Brantford, Ont.	Gravenhurst, O	2 00
3895	" 4	Wm. W. Kaizer	4th Class	Collingwood, Ont.	Collingwood, O	5 00
3896	" 7	John F. Sims	2nd " U.K.	Halifax, N.S.	Halifax, N.S.	5 00
3897	" 7	Ernest C. Twist	2nd " U.K.	England	"	5 00
3898	" 9	Clarence Arthur	2nd " U.K.	Victoria, B.C.	Victoria, B.C.	5 00
3899	" 9	Charles Kemp	4th "	S.S. "Kestrel"	"	5 00
3900	" 9	Robert Clarke	4th "	Victoria, B.C.	"	5 00
3901	" 14	Wm. H. Robertson	4th "	Brantford, Ont	Toronto, Ont.	5 00
3902	" 14	John Leitch	4th "	Toronto, Ont	"	5 00
3903	" 14	Wm. Kenney	4th "	Kingston, Ont	Kingston, Ont	5 00
3904	" 14	W. H. O'Brien	4th "	"	"	5 00
3905	" 14	Albert Farrow	4th "	Vancouver, B.C	Vancouver, BC	5 00
3906	" 14	Fred'k S. Morris	4th "	Hamilton, Ont.	Toronto, Ont.	5 00
3907	" 14	Jas. E. Readman	2nd "	Victoria Harbour, Ont.	Collingwood, O	5 00
3908	" 14	M. J. Toppings	3rd "	Deseronto, Ont	Kingston, Ont	5 00
3909	" 14	John Moore	3rd "	Vancouver, B.C.	Vancouver, BC	5 00
3910	" 14	Robert Morton	3rd "	"	"	5 00
3911	" 14	L. G. Conibear	3rd "	Toronto, Ont	Toronto, Ont.	5 00
3912	" 14	Edouard Fontaine	3rd "	Levis, Que.	Quebec, Que.	5 00
3913	" 22	Jas. T. McKee	1st "	Yarmouth, N.S.	Halifax, N.S.	5 00
3914	" 22	Wm. T. Davie	2nd " U.K.	Levis, Que.	Quebec, Que.	5 00
3915	" 22	John S. Somers	2nd " U.K.	Halifax, N.S.	Halifax, N.S.	5 00
3916	" 22	M. A. Morris	2nd " U.K.	St. John, N.B.	St. John, N.B.	5 00
3917	" 22	Chas. A. Pearce	2nd " U.K.	Dartmouth, N.S.	Halifax, N.S.	5 00
3918	" 22	Wm. Mallett	3rd "	Yarmouth, N.S.	"	5 00
3919	" 22	James Logan	4th "	Peterboro, Ont.	Kingston, Ont	5 00
3920	" 22	M. W. Boston	4th "	Apple River, N.S.	St. John, Ont.	5 00
3921	" 22	Joseph Evans	4th "	Chebucto Rd., N.S.	Halifax, N.S.	5 00
3922	" 22	Peter Davis	4th Class	Deseronto, Ont	Kingston, Ont	5 00
3923	" 22	Isaac J. Boynton	Temporary	Bobcaygeon, Ont	Belleville, Ont	2 00
3924	" 27	Eugene Gendron	2nd Class	Sorel, Que.	Quebec, Que.	5 00
3925	" 27	Adelard Gendron	2nd "	"	Sorel, Que.	5 00
3926	" 27	Elzear Lacroix	1st "	Bienville, Que.	Quebec, Que.	5 00
3927	" 27	E. Lavalee	3rd "	Sorel, Que.	Sorel, Que.	5 00
3928	" 27	Geo. Ducharme	3rd "	"	"	5 00
3929	" 27	Jos. Lapointe	3rd "	Village Lauzon, Que.	Quebec, Que.	5 00
3930	" 27	Jos. A. Convey	4th "	"	"	5 00
3931	" 30	Frank Goodwin	3rd "	Toronto, Ont	Toronto, Ont	5 00
3932	" 30	G. E. Cunningham	3rd "	Windsor, Ont	Windsor, Ont.	5 00
3933	" 30	Thomas King	3rd "	Dresden, Ont.	"	5 00
3934	" 30	David W. Munro	3rd "	Berryton, Ont	Kingston, Ont	5 00
3935	" 30	Alex. Zwicker	3rd "	Bridgewater, N.S.	Halifax, N.S.	5 00
3936	" 30	Wesley Sadler	4th "	Warton, Ont.	Owen Sound, O	5 00
3937	" 30	Dennis Rourke	4th "	Walkerville, Ont.	Windsor, Ont	5 00
3938	" 30	Thos. D. Taylor	4th "	Windsor, Ont	"	5 00
3939	" 30	Neil Maitland	2nd "	"	"	5 00
3940	" 31	W. Charbonneau	2nd "	Sorel, Que.	Sorel, Que.	5 00
3941	" 31	Arthur Seguin	Temporary	Hudson, Que.	Montreal, Que.	2 00
3942	April 11	Richard Routley	4th Class	Windsor, Ont	Windsor, Ont.	5 00
3943	" 11	Jas. H. Purdy	4th "	Beaumont P.O., B.C.	Victoria, B.C.	5 00
3944	" 11	Duncan Stewart	2nd " U.K.	Victoria, B.C.	"	5 00
3945	" 11	V. A. Eckstein	3rd "	Vancouver, B.C.	Vancouver, BC	5 00
3946	" 11	Geo. W. Mardell	4th "	Esquimalt, B.C.	Victoria, B.C.	5 00
3947	" 11	G. W. Wattenbaugh	3rd "	Dawson, Y.T.	Vancouver, BC	5 00
3948	" 14	Frederick W. Harris	4th "	Windsor, Ont	Windsor, Ont.	5 00
3949	" 14	Alfred Shaw	3rd "	Selkirk, Man.	Selkirk, Man.	5 00
3950	" 14	Roy G. Skene	Temporary	Dryden, Ont	Rat Portage, O	2 00

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List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Concluded*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1905.					\$ cts.
3951	April 26..	Alex. J. Elder	4th Class	Hamilton, Ont	Toronto, Ont..	5 00
3953	May 10..	Henri Gendron	3rd "	Sorel, Que	Sorel, Que....	5 00
3954	" 10..	H. Robitaille	4th "	"	"	5 00
3955	" 10..	C. A. Clement	3rd "	Montreal, Que	Montreal, Que	5 00
3956	" 10..	Aug. Lecounte	3rd "	Valleyfield, Que	"	5 00
3957	" 10..	Jos. W. Lamothe	4th "	Champlain, Que	"	5 00
3958	" 10..	A. P. Landriault	Temporary	Hawkesbury, Ont	Calumet, Que.	2 00
3959	" 10..	Fred Jolicoeur	"	Grenville, Que	Ottawa, Ont..	2 00
3960	" 10..	John W. Johnston	2nd Class U.K.	Halifax, N.S	Halifax, N.S..	5 00
3961	" 10..	Alex. McLeod	Temporary	Pictou, N.S	"	2 00
3962	" 10..	Richard J. Riley	"	Annapolis, N.S	"	2 00
3963	" 10..	Arthur McCann	"	Wallace, N.S	Wallace, N.S..	2 00
3964	" 10..	Arthur Dery	"	Rat Portage, Ont	Rat Portage, O	2 00
3965	" 10..	David V. Valentine	"	"	"	2 00
3966	" 10..	Herbert R. Adam	"	Hawkstone P.O., Ont	P. Cockburn, O	2 00
3967	" 10..	Jas. H. Clegg	"	Vancouver, B.C	Vancouver, BC	2 00
3968	" 10..	Jos. Boisvert	2nd Class	Sorel, Que	Sorel, Que....	5 00
3969	" 22..	Zaccheus White	Temporary	Grove's Landing, Ont	Lakefield, Ont	2 00
3970	" 22..	H. R. Stevens	"	Huntsville, Ont	Toronto, Ont..	2 00
3971	" 22..	Wm. Spicer	"	Newboro P.O., Ont	Kingston, Ont	2 00
3972	" 22..	Timothy Whitred	"	Birdsall, Ont	Hastings, Ont.	2 00
3973	" 22..	James Logan	"	Peterboro, Ont	Kingston, Ont	2 00
3974	" 22..	D. Pitceathly	"	Fenelon Falls, Ont	"	2 00
3975	" 22..	Frank Patterson	4th Class	Pictou, Ont	"	5 00
3976	" 22..	Louis Moreau	4th "	Lévis, Que..	Quebec, Que..	5 00
3977	" 22..	E. L. O'Hara	4th "	Sault Ste. Marie, Ont	S'ttSt.Marie,O	5 00
3978	" 22..	Jos. Davignon	3rd "	Sorel, Que	Sorel, Que....	5 00
3979	" 22..	John Guzzwell	3rd "	Vancouver, B.C	Vancouver, BC	5 00
3980	" 22..	Joseph Dion	3rd "	Lévis, Que	Quebec, Que..	5 00
3981	" 22..	Jos. C. Gosford	3rd "	Owen Sound....	Owen Sound, O	5 00
3982	" 26..	Frédéric Pintal	4th "	Champlain, Que	Montreal, Que	5 00
3983	" 31..	Rupert E. Donkin	Temporary	Rat Portage, Ont	Rat Portage, O	2 00
3984	June 6..	Wm. J. McEntyre	"	Port Sydney, Ont	Toronto, Ont .	2 00
3985	" 7..	M. R. R. Ball	"	Sombra, Ont	Sarnia, Ont..	2 00
3986	" 7..	C. Decelles	4th Class	Boucherville, Que	Montreal, Que	5 00
3987	" 12..	Wm. Robinson	Temporary	Kingston, Ont	Gravenhur't, O	2 00
3988	" 17..	Frank Krafve	"	Barrington, N. S	Halifax, N.S..	2 00
3989	" 17..	Arthur Davis	"	Poole's Resort, Ont	Kingston, Ont	2 00
3990	" 17..	Willard Chipman	"	Brockville, Ont	"	2 00
3991	" 17..	Herbert Moore	"	Gananoque, Ont	"	2 00
3992	" 17..	H. Carefoot	"	Winnipegosis, Man	Winnip'gosis O	2 00
3993	" 17..	Jos. H. Hall	"	Selkirk, Man	Selkirk, Man..	2 00
3994	" 17..	Wm. T. Faloona	4th Class	Port Arthur, Ont	Port Arthur, O	5 00
3995	" 17..	D. C. W. Reid	4th "	Selkirk, Man	Selkirk, Man..	5 00
3996	" 17..	William Hay	4th "	Lockport, Man	"	5 00
3997	" 17..	John W. Shannon	4th "	Prince Albert	Prince Albert.	5 00
3998	" 17..	Edmond Gervais	3rd "	Sorel, Que	Sorel, Que . . .	5 00
3999	" 17..	Simon Stewart	3rd "	Selkirk, Man	Selkirk, Man..	5 00
4000	" 19..	Levis Lussier	3rd "	Sorel, Que	Sorel, Que....	5 00
4001	" 22..	Thos. N. Jeffrey	Temporary	Gravenhurst, Ont	Bracebridge, O	2 00
4002	" 23..	Albert F. Stanton	"	Severn Bridge, Ont	Severn Brge, O	2 00

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APPENDIX No. 14.

GENERAL SUMMARY of Expenditure for Fiscal Year 1904-05.

Service.	Amount.	Total.
	\$ cts.	\$ cts.
Ocean and River—		
Maintenance and repairs to Dominion steamers.	476,907 20	
Construction of steamer to replace <i>Aberdeen</i>	301,193 83	
" " for winter and summer navigation	117,575 69	
Examination of masters and mates.....	5,884 74	
Rewards for saving life, building lifeboats, &c	9,592 91	
Investigations into wrecks.....	5,111 34	
Schools of navigation	3,123 24	
Registration of Canadian shipping	1,215 14	
Removal of obstructions in navigable rivers.....	9,521 68	
Tidal service.....	23,802 24	
Winter mail service	10,984 74	
Marine biological stations	2,001 69	
Inspection of cattle, &c.....	3,300 35	
Unforeseen expenses	2,953 19	
		973,167 98
Lighthouse and Coast—		
Salaries and allowances to light-keepers.....	237,919 71	
Agencies, rents and contingencies.....	24,825 66	
Maintenance and repairs to lighthouses	674,264 37	
Construction of lighthouses.....	1,447,202 77	
" " Lake St. Peter.....	93,938 90	
Signal service.....	8,755 44	
Marconi stations.....	40,785 11	
Administration of pilotage.	10,776 51	
Repairs to wharfs	1,590 61	
Salaries of temporary clerks	15,881 35	
Repairs to steamer <i>Scout</i>	21,109 50	
Extension of navigation—Port Arthur and Port William.	12,933 00	
Parliamentary returns.	269 20	
Wharfage facilities, St. John, N.B.....	175 00	
Purchase of land for depot, Parry Sound	12,000 00	
		2,602,427 13
Hydrographic Surveys and Scientific Institutions—		
Magnetic observatory, Toronto	2,463 63	
" " Montreal	500 00	
Meteorological service.....	95,856 58	
Hydrographic service, Lake Superior.....	32,649 24	
" " Lake St. Louis.....	12,290 34	
" " Lake St. Francis.	24,046 85	
" " River St. Lawrence	25,865 82	
" " Atlantic Coast	9,074 73	
Ship channel.....	511,171 41	
Construction, new dredge	10,745 36	
Heirs of late Joseph Paul of dredge <i>J. Israel Tarte</i>	4,000 00	
		728,663 96
Marine Hospitals—		
Care of sick seamen in marine hospitals	51,000 18	
Shipwrecked and distressed seamen	731 38	
		51,731 56
Steamboat Inspection	37,615 31	
" " Refunds.....	12,572 44	
		50,187 75
Hudson's Bay Expedition		236,469 12
Gratuities.....		2,340 00
Civil Government—Salaries	83,790 43	
" " Contingencies.	18,944 88	
		102,735 31
Total Marine Branch.....		4,747,722 81
" Fisheries.....		979,588 70
Grand total		5,727,311 51

A. W. OWEN,
Accountant.F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

APPENDIX No. 15.

STATEMET of Revenue of Marine and Fisheries Department for the fiscal year ended
June 30, 1905.

Service.	—	Refunds.	Amount.
	\$ cts.	\$ cts.	\$ cts.
Harbour, piers and wharfs.			14,148 60
Dominion steamers.			19,912 05
Winter mail service			332 74
Examinations, masters and mates.....			4,643 85
Fines and forfeitures	1,408 75	50 00	1,358 75
Steamboat inspection fund	4,940 58	8 00	4,932 58
" " engineers' certificates.....			1,237 50
Sick mariners' fund.....	58,534 16	161 82	58,372 34
Marine registry searches.....			65 38
Signal station service.....			2,727 66
Casual revenue, sundries.....	17,622 16	3,538 16	14,084 00
			121,815 45
FISHERIES.			
Ontario.....			1,471 51
Quebec			4,648 86
Nova Scotia.....	6,718 58	269 70	6,448 88
New Brunswick.....	11,898 99	11 80	11,887 19
Prince Edward Island.. ..			2,046 50
Manitoba	4,879 70	4 00	4,875 70
North-west Territories.....			1,151 50
British Columbia.....			47,436 00
Yukon Territory.....			340 00
Hudson Bay.....			10 00
			80,316 14
Licenses to United States fishing vessels.....			10,672 00
			90,988 14

RECAPITULATION.

Marine revenue	\$ 121,815 45
Fisheries revenue	90,938 14
	\$ 212,803 59

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

A. W. OWEN,
Accountant.

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APPENDIX No. 16.

STATEMENT of Sick Mariners' Dues collected for the fiscal year ended June 30, 1905.

<i>Quebec.</i>	\$ cts.	<i>Nova Scotia—Con.</i>	\$ cts.
Gaspé	218 84	Liverpool	124 82
Montreal	7,391 12	Lockeport	10 72
Paspebiac	283 12	Lunenburg	534 34
Percé	52 80	North Sydney	925 58
Quebec	7,224 34	Parrsboro	949 14
Rimouski	183 28	Pictou	315 54
St. Armand	3 58	Port Hawkesbury	126 10
St. Johns	1,615 38	Port Hood	23 10
Three Rivers	337 12	Shelburne	126 16
		Sydney	2,832 96
Total	17,309 58	Truro	3 54
		Weymouth	190 00
<i>New Brunswick.</i>		Windsor	1,576 06
Bathurst	330 36	Yarmouth	675 90
Campbellton	203 02		
Chatham	937 00	Total	17,968 20
Dalhousie	805 06		
Moncton.	1,283 92	<i>Prince Edward Island.</i>	
Newcastle	628 80	Charlottetown	252 98
Sackville	172 44	Summerside	47 36
St. John	8,453 62		
St. Stephen	118 60	Total	300 34
Total	12,932 82		
		<i>British Columbia.</i>	
<i>Nova Scotia.</i>		Nanaimo	2,295 52
Amherst	423 10	Vancouver.	1,857 64
Annapolis	226 04	Victoria	5,870 06
Arichat	31 50		
Baddeck	1 26	Total	10,023 22
Barrington	15 60		
Canso	112 38	Total	58,534 16
Digby	142 36	LESS—Refunds	161 82
Halifax	8,476 34		
Kentville	75 66	Grand total	58,372 34

APPENDIX

STATEMENT of Expenditure by the Marine Department

	1868.		1869.		1870.		1871.	
	\$	c.	\$	c.	\$	c.	\$	c.
Maintenance of lights—								
Above Montreal.....	40,561	28	42,306	69	46,289	05	44,054	01
Montreal District.....	23,053	56	25,762	54	21,669	49	22,453	52
Below Quebec.....	45,615	35	41,651	73	43,730	61	31,582	75
Nova Scotia.....	46,460	72	56,394	88	43,682	86	76,230	77
New Brunswick.....	20,488	00	23,893	00	27,485	14	20,542	29
Prince Edward Island.....			..7					
British Columbia..								
Construction—								
Above Montreal.....	3,136	15			2,976	83	8,770	55
Quebec.....	7,323	75	7,492	59	1,543	06		
Nova Scotia.....	22,041	42	6,905	80	18,967	23	10,948	31
New Brunswick.....					11,555	91	8,735	73
Prince Edward Island.....								
British Columbia.....								
Dominion steamers—								
Quebec.....	69,026	73	37,176	02	34,549	49	59,797	05
Nova Scotia...	14,778	92	26,603	94	19,759	96	13,139	86
New Brunswick.....								
Prince Edward Island ..								
British Columbia.....								
Examination of masters and mates.....					908	12	1,407	66
Hudson Bay expedition.....								
Investigations into wrecks.....					140	00		
Marine Hospital, Quebec.....	19,977	36	19,221	45	21,618	73	19,823	18
Marine Hospitals.....	1,070	86	15,615	71	15,652	62	15,728	93
Meteorological service.....	8,200	00	8,950	00	8,950	00	9,370	82
Registration of Canadian shipping.....								
Removal of obstructions.....					2,350	07	1,000	00
Rewards for saving life.....								
Signal service.....								
Steamboat inspection.....	7,106	93	7,999	00	7,396	96	8,321	00
Survey, Georgian Bay...								
Water Police, Montreal.....	27,445	35	10,238	71	9,323	31	8,030	00
" Quebec.....			12,633	59	9,038	62	9,379	73
Civil Government.....	15,083	88	18,064	25	19,401	05	20,220	96
Steam communication--								
Between Quebec and Maritime Provinces.....								
Between Prince Edward Island and Mainland.....								
Purchase of steamer to replace--								
Glendon ..								
Lady Head ..								
Winter mail service, Prince Edward Island.....								
Tidal observations.....								
Gratuities.....								
Survey, Burrard Inlet ..								
Export cattle trade.....								
	371,070	56	360,899	90	362,129	1	389,537	12

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STATEMENT of Expenditures by the Marine Department

	1881.	1882.	1883.
	\$ cts.	\$ cts.	\$ cts.
Maintenance of lights—			
Above Montreal.....	65,541 21	71,048 50	70,116 68
Montreal District	14,326 36	21,643 05	22,260 32
Below Quebec.....	89,781 29	91,098 66	102,784 99
Nova Scotia.....	128,918 59	137,846 15	150,793 17
New Brunswick	63,921 90	66,073 00	75,946 92
Prince Edward Island	12,997 36	16,985 72	17,907 27
British Columbia.....	17,570 72	17,803 00	18,349 06
Cape Race.....			
Construction—			
Above Montreal.....	14,180 02	13,581 00	9,782 27
Quebec.	7,539 76	3,731 31	9,672 50
Nova Scotia.....	7,757 52	13,355 00	9,422 75
New Brunswick.....	4,578 52	2,253 80	1,022 57
Prince Edward Island	8,150 06	3,092 00	1,934 49
British Columbia.....	8,655 39	3,237 90	1,005 26
Queen's Printer.....			
Dominion steamers—			
Quebec.....	64,973 00	44,923 98	45,156 13
Nova Scotia.....	36,700 00	31,049 74	37,841 07
New Brunswick			
Prince Edward Island.....	15,139 95	23,911 97	19,680 00
British Columbia.....	11,788 09	8,504 61	25,484 00
Department.....			
Examinations of masters and mates	3,888 41	3,981 00	4,021 20
Hudson's Bay expedition.....			
Investigation into wrecks.....	310 48	863 19	875 64
Marine hospital, Quebec.....	19,964 33	19,938 12	19,998 53
Marine hospitals.....	32,218 94	33,162 45	29,880 78
Meteorological service.....	46,163 54	47,464 07	51,990 25
Registration of Canadian shipping	607 43	2,013 28	168 84
Removal of obstruction.....	150 00	1,116 51	35 80
Rewards for saving life	1,806 13	2,212 00	2,534 60
Signal service.....			3,365 33
Steamboat inspection.....	12,211 65	14,835 00	16,209 00
Hydrographic surveys.....			77 81
Water Police, Montreal	21,953 26	21,994 74	15,798 24
" Quebec.....	13,497 81	20,221 82	22,520 41
Civil Government.....	36,447 50	36,789 46	37,988 39
Steam communication—			
Between Quebec and Maritime Provinces.....			
Between Prince Edward Island and Mainland			
Repairs to wharfs.....			
Purchase of steamers to replace—			
Stanley.....			395 55
Glendon.....			
Lady Head.....			
Winter mail service, Prince Edward Island.....			
Tidal observations			
Gratuities.....			
Survey, Burrard Inlet.....			
Export cattle trade.....			
Survey, Bay of Quinte.....			
Relief of distressed Canadians.....			
Manning ships.....			
Widow of late A. Warner.....			
McDonald Bros.....			
Parliamentary Returns.....			
Investigating effect of Chicago drainage canal			
John McDonald			
Longitude, Montreal ..			
Marine biological station.....			
	761,730 62	774,831 53	825,010 82

STATEMENT of Expenditure by the Marine Department

	1892.	1893.	1894.	1895.	1896.	1897.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Maintenance of lights—						
Above Montreal	87,033 61	87,598 15	78,090 69	82,541 16	87,256 28	80,961 06
Montreal District	116,531 27	120,404 19	124,348 80	124,763 81	124,143 66	126,186 00
Below Quebec						
Nova Scotia	148,815 26	150,445 26	137,339 73	140,977 53	123,234 65	124,671 19
New Brunswick	66,886 69	71,079 46	59,917 96	69,654 46	63,018 64	56,771 02
Prince Edward Island	17,069 98	16,819 64	15,569 39	17,976 67	17,988 15	16,429 23
British Columbia	26,858 68	24,413 27	27,240 77	21,734 18	24,770 44	25,679 52
General account						
Construction—						
Above Montreal	21,704 05	8,766 62	12,581 15	2,699 40	11,993 84	9,527 84
Quebec	809 27	10,097 18	4 743 13	3,004 14	3,300 00	296 26
Nova Scotia	1,965 16	4,381 24	3,104 77	4,737 03	1,842 94	61 71
New Brunswick	1,845 35	1,271 15	115 45	1,597 80	200 00	1 60
Prince Edward Island	1 56		1,604 00			452 90
British Columbia	9,478 81	2,958 61	6,356 43	180 83	225 50	569 99
Lake St. Peter						
New dredge						
Dominion steamers						
Quebec						
Nova Scotia						
New Brunswick	145,899 61	163,097 46	178,183 97	169,661 64	145,315 28	136,940 11
Prince Edward Island						
British Columbia						
Naval Schools						
Examinations of masters and mates	6,363 88	4,116 99	3,745 33	2,757 29	4,062 82	3,536 29
Hudson's Bay expedition						19,091 32
Investigation into wrecks	603 21	643 49	850 81	351 15	483 98	565 25
Lighthouse depot, Georgian Bay						
Marine hospitals	34,106 83	35,757 07	38,403 94	38,589 05	36,682 96	37,984 71
Meteorological service	67,138 06	64,165 60	66,440 96	64,588 34	66,600 29	67,397 71
Registration of Canadian shipping	462 59	1,476 19	394 00	207 40	517 60	531 55
Removal of obstructions	2,878 68	1,554 53	202 02	2,217 36	456 38	631 86
Rewards for saving life	6,398 93	7,432 64	8,014 67	6,591 34	8,004 38	5,955 19
Signal service	5,014 42	5,040 58	4,668 93	5,311 74	5,338 76	5,986 12
Steamboat inspection	22,736 59	24,386 95	25,961 36	26,385 88	26,321 27	26,837 83
Hydrographic surveys	16,451 10	17,542 11	31,461 76	12,653 28	15,099 63	12,352 99
Ship channel	6,161 60	5,436 23				
Civil Government	43,195 31	56,477 23	54,988 88	71,373 82		74,801 37
Repairs to wharfs		84 90	1,007 67	824 38	2,644 69	1,795 56
Purchase of steamer <i>Minto</i>						
Winter mail service, P.E.I.	3,309 44	4,376 96	6,497 03	6,138 18	7,779 69	21,931 05
Tidal observations	711 59	5,099 17	10,172 61	11,507 24	9,627 45	13,166 20
Gratuities			3,261 32			
Survey, Burrard Inlet	2,580 45					
Export cattle trade	1,411 57	1,711 73	1,350 83	2,268 74	2,887 24	
Survey, Bay of Quinté		2,085 45				
Relief of distressed Canadians				7 30		
Manning ships				500 00	746 89	
Widow of late A. Warner				160 00		
Macdonald Bros				4,000 00		
Parliamentary returns					291 08	
Investig. effect of Chicago drain. canal					2,500 00	
John Macdonald					200 00	
Unforeseen expenses						
Marine biological station						
New life-saving station, Long Point						
Salaries temporary clerks						
Steamer to replace <i>Bannock</i>						
Observatory, Sulphur Mountain						
Charles Morrison						
W. H. Smith						
Montreal Pilotage Comrs						
" Wireless Telegraphy						
Purchase land for wharf at Halifax, N.S.						
" Charlottetown, P.E.I.						

STATEMENT of Expenditure by the Marine Department

	1892.	1893.	1894.	1895.	1896.	1897.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Maintenance and construction of Lurcher and Anticosti lightships.....
Damages awarded merchants for losses re detention of <i>Minto</i> and <i>Stanley</i>
Repairs steamer <i>Scout</i>
Extension navigation, Port Arthur....
Wharfage facilities, St. John, N. B.
Heirs of late J. Paul.....
Steamer to replace <i>Aberdeen</i>
Winter and summer navigation.....
	861,426 80	898,720 03	905,654 34	895,828 28	793,634 49	867,772 90

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from Confederation to June 30, 1905—Continued.

1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
						31,517 80	
						9,401 70	
							21,109 50
							12,399 00
							175 00
							4,000 00
							301,193 83
							117,175 69
856,192 50	1,102,601 90	982,561 97	1,029,925 32	1,501,618 88	1,671,494 77	2,150,940 31	4,747,722 81

APPENDIX No. 18.

STATEMENT relating to the Wharfs under the control of the Department on
June 30, 1905.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Ontario.</i>				\$ cts.
Blind River	James Lachore	Sept. 17, 1903.	25 p.c. of collections....	336 49
Bruce Mines	Wm. Fleming	April 15, 1902.	25 "	173 28
Cockburn Island ..	G. McKenzie	May 19, 1903.	25 "	
Goderich	W. Marlton	Feb. 14, 1894.	25 "	543 65
Hilton, St. Joseph Id., Algoma	E. Stubbs	June 20, 1898.	50 "	292 65
Kingsville	W. H. Black.	Aug. 1, 1902.	25 "	120 34
L'Original	E. A. Hall	Mar. 23, 1904.	25 "	708 74
Morpeth	C. Stammers	Aug. 1, 1892.	25 "	
North Bay	W. McKenzie	Oct. 9, 1900.	25 "	1 20
Oshawa				804 69
Pelee Island	Wm. Rinkel	Sept. 1, 1903.	25 p.c. of collections....	151 11
Fort Finley	M. McLennan	May 10, 1902.	25 "	
Port Rowan	John Collett	" 2, 1898.	25 "	
Richard's Landing, Algoma..	R. Armstrong	Mar. 11, 1899.	50 "	373 11
Rondeau	W. R. Fellowes	Dec. 17, 1883.	25 "	27 71
Sault Ste. Marie ...	Geo. A. Boyd	April 9, 1897.	\$142 per month during season of navigation...	226 21
Sheguindah	John Hastie	June 11, 1902.	25 p.c. of collections....	127 95
Southampton	Geo. McVittie	Aug. 16, 1895.	25 "	125 32
Summerstown	Under lease			
Thessalon, W. Algoma	D. J. Sandle	April 22, 1902.	25 p.c. of collections....	154 98
Warton	Philip Gilbert.	" 22, 1902.	25 "	169 50
Total				4,336 93
<i>Quebec.</i>				
Agnes, Lake Megantic....	L. A. Roy	Nov. 27, 1891.	25 p.c. of collections....	
Anse St. Jean	F. Lavoie	Mar. 13, 1895.	25 "	40 52
Baie St. Paul	Edward Cunningham	Oct. 26, 1905.		68 22
Baie St. Paul, Isolated Block.	H. Tremblay	Sept. 4, 1894.	25 p.c. of collections....	
Beauport	D. Giroux	Nov. 11, 1896.	25 "	
Berthier	E. Gaumond	July 5, 1897.	50 "	58 00
Cap-à-l'Aigle	Jos. Guay	Oct. 7, 1896.	25 "	38 40
Carleton.	Chas. Bernier	April 15, 1902.	\$50 per annum	
Cascades	Moïse Leroux	Oct. 20, 1897.	25 p.c. of collections....	
Cedars	J. Reay	April 29, 1898.	25 "	
Chicoutimi	Thomas Tremblay	May 23, 1901.	25 "	359 76
Côteau du Lac	M. St. Amour	Sept. 21, 1896.	50 "	13 99
Côteau Landing	J. A. Prieur	May 25, 1897.	25 "	
Echo Vale, Lake Megantic..	D. P. Matheson	" 16, 1894.	25 "	
Esquimaux Point	Vacant			
Grand River	Geo. Beaudin	Nov. 16, 1896.	25 p.c. of collections....	156 54
Greece's Point	T. Ranger	July 16, 1902.		19 28
Isle aux Grues	Désiré Vezina	June 13, 1904.	25 p.c. of collections....	0 45
Isle Perrot	Roger Leduc	Oct. 20, 1897.	25 "	
Knowlton's Landing	L. Knowlton	Nov. 26, 1897.	25 "	
Lacolle	R. J. Robinson	Mar. 8, 1894.	25 "	17 62
Les Eboulement	M. Tremblay	Sept. 4, 1894.	25 "	61 84
L'Islet	Octave Morin	Feb. 8, 1893.	25 "	
Longueuil	Eusébe Denicourt	May 15, 1901.	25 "	20 25
Magog	Edward Addy	June 20, 1898.	25 "	
Matane	Louis Durette	Aug. 25, 1900.	25 "	261 49
Murray Bay	Elie Maltais	" 15, 1893.	25 "	85 28
New Carlisle	John Chisholm	April 22, 1902.	50 "	25 26
Percé	E. Bourget	Mar. 11, 1903.	25 "	139 11
Port Daniel	Geo. McInnis	April 30, 1903.	\$50 per annum	64 74

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STATEMENT relating to the Wharfs, &c.—*Continued.*

Locality.	Wharfinger	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Quebec—Con.</i>				\$ cts.
Port Lewis.....	Sam. Carson.....	Sept. 21, 1899.	25 p.c. of collections....	
Rimouski.....	Chas. Lepage.....	July 24, 1894.	25 " " " " " "	
Rivière Ouelle.....	J. Hudon dit Beau- lieu.....	Nov. 28, 1892.	25 " " " " " "	
Rivière du Loup.....	F. E. Gilbert.....	Aug. 15, 1902.	\$146 per annum. ...	409 15
St. Anicet.....	S. Dupuis.....	Sept. 14, 1896.	25 p.c. of collections....	
St. Alphonse de Bagotville..	Abel Tremblay.....	July 7, 1891.	25 " " " " " "	163 13
St. Irénée.....	Geo. Bouchard.....	Feb. 10, 1903.	25 " " " " " "	
St. Jean d'Orleans.....	L. Lachance.....	Sept. 26, 1896.	25 " " " " " "	63 60
St. Jean Port Joli.....	J. Pelletier.....	" 14, 1896.	25 " " " " " "	
Ste. Cécile du Bic.....	Olivier Ouellette.....	Aug. 24, 1900.	25 " " " " " "	30 00
St. Laurent d'Orleans.....	Joachim Godbout..	May 11, 1904.	25 " " " " " "	25 71
St. Nicholas.....	Under lease.....		25 " " " " " "	25 00
St. Thomas de Montmagny..	L. L. Dionne.....	Oct. 22, 1896.	25 " " " " " "	2 70
St. Zotique.....	J. M. Leroux.....	Sept. 14, 1896.	25 " " " " " "	
Tadousac.....	A. Christianson.....	Oct. 20, 1897.	25 " " " " " "	69 21
Trois Pistoles.....	D. Damour.....	May 10, 1895.	25 " " " " " "	
Valois Point.....	L. Castonguay.....	Oct. 20, 1897.	25 " " " " " "	
Ville Marie.....	Jules Maillard.....	Febs 2, 1899.	25 " " " " " "	
			Total.....	2,218 97
			Less paid wharfinger, Carleton.....	8 28
<i>Nova Scotia.</i>				2,210 97
Arisaig.....	H. R. McAdam.....	Dec. 30, 1898.	25 p.c. of collections....	8 28
Avonport.....	L. F. Fuller.....	Aug. 15, 1902.	25 " " " " " "	21 28
Babin's Cove.....	Alex. Thomas.....	Oct. 20, 1897.	25 " " " " " "	189 32
Barrington.....	J. H. Christie.....	Aug. 31, 1896.	25 " " " " " "	
Bass River.....	Jotham Fulton.....	Jan. 6, 1898.	25 " " " " " "	59 61
Bayfield.....	Roderick Grant.....	April 23, 1902.	25 " " " " " "	
Bear Point.....	E. R. Smith.....	Feb. 19, 1902.	25 " " " " " "	100 39
Belliveau Cove.....	St. Clair Thérieau..	Nov. 24, 1892.	25 p.c. of collections....	16 27
Black Point.....	J. P. Littlewood...	Jan. 8, 1904.	25 " " " " " "	
Broad Cove.....	John Teal.....	June 12, 1893.	25 " " " " " "	
Broad Cove Marsh.....	Hugh McDonald.....	Oct. 19, 1892.	25 " " " " " "	
Brooklyn.....				15 86
Canada Creek.....	Henry Dickey.....	Aug. 12, 1899.	25 p.c. of collections....	
Cape Cove.....	J. A. Ellis.....	May 14, 1897.	25 " " " " " "	
Centreville.....	Alfred Ward.....	" 28, 1897.	25 " " " " " "	91 48
Chipman's Brook.....	Abner Barkhouse...	Dec 21, 1903.	25 " " " " " "	
Church Point.....	Chas. F. Belliveau..	Aug. 20, 1892.	25 " " " " " "	54 01
Cranberry Head.....	A. Shaw.....	May 26, 1903.	25 " " " " " "	
Cribbens Pier, Antigonish Hr.	A. R. Boyd.....	Oct. 2, 1895.	25 " " " " " "	
Delap's Cove.....	R. W. McCaul.....	Nov. 28, 1889.	25 " " " " " "	4 26
Descoisse (New).....	J. Gruchy.....	Jan. 27, 1904.	25 " " " " " "	36 79
Digby.....	W. W. Hayden.....	April 20, 1897.	25 " " " " " "	2,236 26
Eagle Head.....	Nathan Leslie.....	Jan. 9, 1899.	25 " " " " " "	
East Bay.....	Alex. McGillivray...	Aug 3, 1903.	25 " " " " " "	
East River, Sheet Harbour..	Malcolm McFarlane.	May 20, 1890.	25 " " " " " "	
Grand Narrows, Victoria Co.	F. X. McNeil.....	Nov. 11, 1896.	25 " " " " " "	
Grand Narrows, Cape Breton Co.....	Neil McNeil.....	Aug 6, 1898.	25 " " " " " "	
Great Village.....	Vacant.....			
Granville Centre.....	Henry Roney.....	July 6, 1903.	25 p.c. of collections....	80 15
Hall's Harbour.....	T. A. Neville.....	Jan. 8, 1897.	25 " " " " " "	29 94
Hampton.....	E. B. Foster.....	May 23, 1904.	25 " " " " " "	13 67
Hantsport.....	Vacant.....			
Harbourville.....	Isaac Cook.....	May 28, 1897.	25 p.c. of collections....	9 59
Horton Landing.....	F. G. Curry.....	April 30, 1898.	25 " " " " " "	2 14
Iona, Grand Narrows.....	F. S. X. McNeil.....	June 8, 1901.	25 " " " " " "	
Irish Cove.....	Malcolm McNeil...	" 6, 1902.	25 " " " " " "	
Isaac's Harbour.....	T. D. Cook.....	Jan. 30, 1902.	25 " " " " " "	13 67
Jordan Bay.....	John Fredericks...	Feb. 20, 1900.	25 " " " " " "	74 03
Kelly Cove.....	Jos. B. Huskins....	April 11, 1899.	25 " " " " " "	

STATEMENT relating to the Wharfs, &c.—Continued.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Nova Scotia.</i>				\$ cts.
Little Narrows.....	Vacant.....			
Lisimore.....	D. A. McKinnon.....	July 5, 1895.	25 p.c. of collections.....	
Maitland, Hants Co.....	Vacant.....			
Margaretsville.....	C. S. McLean.....	May 7, 1897.	25 p.c. of collections.....	118 50
Meteghan Cove.....	H. F. Robicheau.....	" 28, 1897.	25 ".....	
Meteghan River.....	D. D'Entremont.....	" 14, 1897.	25 ".....	0 71
Militia Point.....	D. McIntosh.....	Aug. 20, 1892.	25 ".....	
Morden.....	John Redgate.....	Nov. 16, 1893.	25 ".....	9 54
Noel.....	Vacant.....			
Northside Boularderie.....	".....			
Oak Point (Kingsport).....	Rent from Railway Company.....			200 00
Ogilvie.....	R. S. Armstrong.....	May 13, 1901.	25 p.c. of collections.....	14 20
Parrsboro'.....	Thompson Tipping.....	Nov. 26, 1888.	25 ".....	
Parker's Cove.....	S. Anderson.....	July 21, 1903.	25 ".....	52 91
Pickett's Wharf.....	Freeman A. Eaton.....	Aug. 2, 1899.	25 ".....	66 38
Pictou Island.....	Vacant.....			
Plymouth.....	James B. Purdy.....	Feb. 22, 1902.	25 ".....	
Plympton.....	Wm. K. Smith.....	Aug. 8, 1890.	25 ".....	
Port Dufferin, Halifax Co.....	H. J. Balcom.....	Feb. 17, 1899.	25 ".....	33 76
Point Brulé.....	Alex. Craig.....	Dec. 26, 1898.	25 ".....	
Port George.....	Outhit Douglas.....	June 26, 1900.	25 ".....	88 67
Port Greville.....	Vacant.....			
Port Hood.....	Albert Macdonald.....	May 22, 1900.	25 ".....	
Port Joli.....	Jos. S. McAdams.....	Feb. 5, 1900.	25 ".....	
Port La Tour.....	David Sholds.....	" 1, 1900.	25 ".....	24 98
Port Lorne.....	Freeman Beardsley.....	June 22, 1897.	25 ".....	49 20
Port Maitland, Yarmouth Co.....	J. Ellis.....	Dec. 10, 1896.	25 ".....	
Port Morien.....	John McAulay.....	" 10, 1896.	7½ ".....	443 42
Poulomon.....	Thos. Boudrot.....	Feb. 22, 1902.	25 ".....	30 15
Riverside.....	Geo. W. Hawes.....	Mar. 11, 1902.	25 ".....	11 13
Salmon River, Digby Co.....	J. M. Deveau.....	Nov. 29, 1890.	25 ".....	
Saulniersville.....	John T. Saulnier.....	Aug. 25, 1888.	25 ".....	9 27
Swims Point.....	John F. Duncan.....	Jan. 23, 1902.	25 ".....	16 67
Tancook Island.....	Amos H. Stevens.....	Mar. 11, 1898.	25 ".....	
Tidnish.....	R. A. Smith.....	Sept. 27, 1901.	25 ".....	
Tracadie.....	J. M. Hall.....	Nov. 6, 1888.	25 ".....	
Tusket Wedge.....	Vacant.....			
Town Point.....	J. A. Haley.....	Aug. 16, 1901.		
Victoria.....	Amos West.....	Dec. 4, 1900.	25 p.c. of collections.....	3 51
Wallace.....	Vacant.....			
Wallace Harbour, South side.....	".....			
West Pubnico.....	Chas. C. D'Entremont.....	Mar. 28, 1898.	25 p.c. of collections.....	29 38
West River, Sheet Harbour.....	Malcolm McFarlane.....	Sept. 3, 1889.	25 ".....	
White Point.....	Elisha West.....	Jan. 9, 1889.	25 ".....	
White Waters.....	Jos. Irvine.....	Sept. 27, 1901.	25 ".....	
Whycocomagh.....	D. S. Carmichael.....	Oct. 31, 1903.		0 36
Wolfville.....	J. L. Franklin.....	" 22, 1901.		63 60
Total.....				4,333 34
Less short on remittances.....				0 04
<i>New Brunswick.</i>				4,333 30
Anderson's Hollow.....	W. C. Anderson.....	Feb. 13, 1899.	25 p.c. of collections.....	25 97
Bathurst.....	Thomas. F. Leahy.....	Sept. 4, 1903.	25 ".....	
Black River.....	J. F. McGourty.....	Oct. 31, 1902.	25 ".....	19 94
Buctouche.....	J. J. Leblanc.....	May 2, 1892.	25 ".....	21 75
Burnt Church.....	James Anderson.....	Feb. 26, 1904.	25 ".....	
Campbellton.....	G. E. Asker.....	May 11, 1904.	25 ".....	550 78
Cape Tormentine.....	E. T. Allen.....	Oct. 20, 1897.	25 ".....	279 05
Clifton, St. John's.....	S. Payne.....	Nov. 9, 1894.	25 ".....	
Cocagne.....	H. Bourgeois.....	Aug. 9, 1900.	25 ".....	0 75
Cole's Point, Dorchester.....	Edward Cole.....	" 29, 1903.	25 ".....	

SESSIONAL PAPER No. 21

STATEMENT relating to the Wharfs, &c.—*Concluded.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
				\$ cts.
<i>New Brunswick—Con.</i>				
Dalhousie.....	W. J. Smith.....	June 27, 1891.	25 p.c. of collections.....	37 67
Edgett's Landing.....	Thos. Barnett.....	July 5, 1895.	25 ".....	
Gardner's Creek.....	Robert Wallace.....	Dec. 11, 1899.	25 ".....	
Hopewell Cape.....	Geo. D. Wilson.....	April 10, 1899.	25 ".....	25 19
Kingston.....	P. Thibodeau.....	Jan. 31, 1901.	25 ".....	
Main River, Richibucto.....	A. J. Curran.....	Aug. 30, 1902.	25 ".....	
Neguac.....	B. Poirier.....	June 17, 1897.	25 ".....	
Quaco.....	Wellington Vale.....	Dec. 19, 1899.	25 p.c. of collections.....	
St. Louis.....	C. Frigand.....	Oct. 29, 1895.	25 ".....	
St. Mary's.....	M. J. S. Leblanc.....	Mar. 1, 1897.	25 ".....	
St. Nicholas River, S. Welford	John Grant.....	Sept. 27, 1901.	25 ".....	
Tracadie.....	Prosper Savoy.....	" 23, 1899.	25 ".....	
Two Rivers.....	Wesley Wilbur.....	Jan. 8, 1894.	25 ".....	7 50
Total.....				968 60
<i>Prince Edward Island.</i>				
Annandale.....	W. C. Jenkins.....	May 4, 1897.	25 p.c. of collections.....	44 82
Bay View.....	Joseph Harrington.....	Oct. 2, 1885.	25 ".....	1 36
Belfast.....	Jas. F. Halliday.....	May 1, 1901.	25 ".....	107 68
Brush Wharf, Port Selkirk..	Levi R. Ings.....	Sept. 18, 1885.	25 ".....	110 84
Campbell's Cove.....	Angus McIntyre.....	Oct. 17, 1888.	25 ".....	
Chapel Point.....	Roland McCormack.....	Sept. 18, 1885.	25 ".....	17 19
China Point.....	W. S. N. Crane.....	" 18, 1885.	25 ".....	15 11
Clifton.....	John Gunn.....	May 24, 1900.	25 ".....	
Cranberry, East River.....	James Hughes.....	Mar. 11, 1898.	25 ".....	
Crapaud, Victoria Pier.....	E. McKinnon.....	July 7, 1897.	25 ".....	146 24
Dominion.....	A. Lord, Agt. Dept. of Marine and Fish- eries.....			816 00
Georgetown.....	R. R. Jenkins.....	Oct. 14, 1882.	25 p.c. of collections.....	24 54
Haggerty's Wharf, E. River..	M. Burnett.....	Feb. 14, 1898.	25 ".....	
Hickey's Wharf.....	Mark Webster.....	Oct. 22, 1896.	25 ".....	26 03
Higgin's Shore.....	G. G. Henry.....	Nov. 9, 1891.	25 ".....	
Hurd's Point.....	Thos. Montgomery.....	Aug. 16, 1901.	25 ".....	32 72
Kier's Shore.....	W. Hodgson.....	June 10, 1895.	25 ".....	120 20
Lambert.....	Wellington Johnston.....	May 3, 1900.	25 ".....	1 69
Lewis Point.....	J. G. Scrimigeour.....	Oct. 14, 1896.	25 ".....	
McGee's Wharf, Abram's Vill.	Norman Gallant.....	Nov. 9, 1901.	25 ".....	
Mink River or Murray Har- bour, North.....	James P. Clow.....	Aug. 25, 1900.	25 ".....	13 12
Murray Harbour, South.....	J. McKinnon.....	Jan. 27, 1896.	25 ".....	
Nine Mile Creek.....	Edward Harrington.....	Oct. 29, 1885.	25 ".....	
North Cardigan.....	Rodk J. Steele.....	May 1, 1901.	25 ".....	46 77
Pinette.....	Malcolm McLeod.....	Jan. 3, 1901.	25 ".....	
Pownal.....	M. M. Haley.....	Oct. 13, 1896.	25 ".....	30 72
Red Point.....	Arch. Smith.....	April 3, 1900.	25 ".....	15 03
St. Mary's Bay.....	John Dickson.....	Dec. 10, 1896.	25 ".....	18 89
Souris.....	Angus McDonald,			
South Rustico, Oyster Bed	caretaker.....	Sept. 27, 1894.	25 ".....	
Bridge.....	D. Gallant.....	Feb. 23, 1895.	25 ".....	13 77
Stevens and Montague.....	Well'g'n A. Johnston.....	May 3, 1900.	25 ".....	
Sturgeon River.....	Bernard Kearney.....	Sept. 18, 1885.	25 ".....	27 38
Tanguish.....	A. J. Gaudet.....	Aug. 23, 1898.	25 ".....	1 28
Vernon River.....	W. M. Forbes.....	April 22, 1902.	25 ".....	87 93
Wood Island.....	James Young.....	" 10, 1899.	25 ".....	22 64
Total.....				1,738 95

RECAPITULATION.

Ontario.....	\$	4,336	93
Quebec		2,210	97
Nova Scotia.....		4,333	30
New Brunswick.....		968	60
Prince Edward Island.....		1,738	95
<hr/>			
Total wharfage dues placed to credit of Receiver General.....	\$	13,588	75
ADD—Fees received by undermentioned harbour masters in excess of remuneration allowed :—			
Harbour Master—Collingwood, Ont.	\$	15	00
“ St. John, Que.....		161	00
“ Sorel, Que.....		217	50
“ Hantsport, N.S.		2	50
“ International Pier, N.S.....		50	00
“ Hillsboro, N.B..		34	35
“ Chemainus, B.C.....		58	00
“ Comox		16	50
“ Victoria, B.C... ..		5	00
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	\$	559	85
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Total Revenue from Wharfs and Harbours.....	\$	14,148	60

APPENDIX No. 19.

STATEMENT of Steamboat Inspection Dues collected during the Fiscal Year ended June 30, 1905.

<i>Ontario.</i>		\$	cts.	<i>Nova Scotia.</i>		\$	cts.
Bridgeburg.....		17	12	Amherst		10	44
Brockville.....		10	64	Halifax		1,415	12
Kingston		35	84	Kentville		419	12
Niagara Falls		7	92				
Port Arthur.....		30	98			1,844	68
Rat Portage.....		0	96				
Sarnia		18	88	<i>British Columbia.</i>			
Sault Ste. Marie		61	68	Victoria.....		941	76
Toronto.....		135	04				
Windsor		697	28				
				<i>North-west Territories.</i>			
		1,076	34	Dawson.....		498	04
<i>Quebec.</i>							
Montreal		155	68			4,940	58
Quebec		138	16	Total			8 00
				Less refunds..			
		293	84			4,932	58
<i>New Brunswick.</i>							
St. John.....		294	40	Fees for engineers' certificates.....		1,237	50
St. Stephen		31	52				
				Grand total		6,170	08
		325	92				

APPENDIX No. 20.

STATEMENT giving Names and Stations of Light-keepers, &c., in the Dominion.

ABOVE MONTREAL.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Armstrong, John.	Kaministikwia River	April 28, 1894..	300	00
Alexander, Andrew.	Lamb Island.....	" 26, 1897..	400	00
Armstrong, Robt.....	Richards Landing.....	June 23, 1904..	40	00
Baechler, F.	South River.....	July 2, 1903..	80	00
Baker, Henry F.....	Clapperton Island.....	Dec. 2, 1895..	350	00
Boyd, Robert P.....	Cole Shoal.....	April 9, 1884..	250	00
Boyd, Wm. S.....	Griffith Island.....	May 14, 1889..	400	00
Butler, Silas L.....	Port Dover.....	July 15, 1897..	300	00
Baxter, Wm. L.....	Brebœuf Range.....	Nov. 23, 1885..	375	00
Boucher, François.....	Aylmer Island.....	" 17, 1882..	175	00
Bamford, Robert.....	Bamford Island.....	June 21, 1888..	250	00
Bertrand, Félix.....	Coulonge Lake.....	April 2, 1892..	100	00
Boyd, Wm. M.....	Kagawong.....	" 13, 1893..	72	00
Boyter, A. B.....	Narrow Island.....	Jan. 3, 1893..	250	00
Boyter, David.....	Little Current lights.....	April 22, 1902..	350	00
Brown, Adam.....	Red Rock, Parry Sound.....	May 25, 1899..	450	00
Brown James.....	Southampton Harbour.....	June 29, 1904..	150	00
Ball, J. H.....	Mississagi Strait, Light and Fog Alarm.....	May 7, 1900..	750	00
Black, W. H.....	Kingsville Range.....	July 27, 1902..	150	00
Borron, Mrs. E. B.....	French river Range.....	Jan. 30, 1903..	500	00
Burmister, John F.....	Nottawasaga Island	May 2, 1904..	500	00
Brophy, J. J.....	Brown or Knapp Point.....	" 9, 1905..	180	00
Collins, Allen.....	Christian Island	Mar. 25, 1891..	*425	00
Cross, Manly R.....	Gananoque Narrows & Jack Straw Shoal Light	Aug. 25, 1896..	480	00
Campbell, Robert.....	Goderich.....	June 9, 1886..	400	00
Craig, Wm.....	Thunder Cape, Light and Fog Alarm.....	May 17, 1892..	700	00
Cook, Seldon B.....	Long Point Light and Fog Alarm.....	June 9, 1897..	700	00
Campbell, John.....	McTavish Point.....	Nov. 18, 1896..	100	00
Crevier, Dolphis	Pointe Claire.....	May 11, 1888..	200	00
Cartier, H. J.....	Thames River.....	Oct. 19, 1884..	425	00
Cooper, John.....	Port Arthur.....	" 14, 1882..	†300	00
Cosgrove, George.....	Victoria Island, Lake Superior.....	Nov. 14, 1889..	350	00
Columbus, Christopher.....	Penetanguishene and Whiskey Island.....	Mar. 18, 1893..	400	00
Conover, Forrest H. C.....	Leamington.....	April 24, 1883..	150	00
Cox, John.....	Morrison or Hawley Island.....	June 22, 1887..	100	00
Chabot, Joseph.....	Papineauville Range.....	" 17, 1897..	100	00
Connors, Frank.....	Point Pleasant.....	Oct. 13, 1898..	300	00
Chase, H. J.....	Weller Bay.....	Nov. 4, 1898..	150	00
Casgrain Mrs. Kate.....	Glengarry or Stonehouse Point	May 29, 1903..	36	00
Currie, Archibald.....	Tobermory.....	Oct. 12, 1903..	250	00
Cowan, Thos. M.....	Stag Island Shoal.....	Nov. 3, 1903..	150	00
Chapman, Richard.....	Cape Croker Light and Fog Alarm.....	" 13, 1902..	650	00
Clark, jr., H.....	Port Colborne Breakwater, Light & Fog Alarm.....	May 30, 1904..	600	00
Currie, Hector.....	Flowerpot Island.....	Aug. 18, 1904..	300	00
Cross, J. W.....	Silver Islet Range.....	May 18, 1905..	100	00
Davieau, Joseph.....	Corbay Point.....	May 27, 1890..	350	00
Davieau, Hyacinthe.....	Michipicoten Island.....	July 1, 1881..	400	00
Daoust, Dosithée.....	McKie Point	Sept. 21, 1893..	175	00
Davis, John H.....	Pigeon Island	May 16, 1896..	350	00
Dick, Andrew	Porphyry Point.....	Aug 10, 1880..	450	00

* Allowance of \$10 per annum for boat.
† Allowance of \$100 per annum, looking after lighted buoys in vicinity

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*ABOVE MONTREAL—*Continued.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Dutcher, Samuel	Meaford	May 7 1877	200 00
Darling, Thomas	Southeast Bay	Jan. 31, 1891	60 00
Dixon, Joseph G.	Rosseau	July 21, 1890	100 00
Deault, Alphonse	Beauharnois Lights	April 14, 1903	200 00
Demers, Wilbrod	Caribou Island Light and Fog Alarm.	May 10, 1899	1,000 00
Dulmage, Dorland	Outer Drake or False Ducks Light and Fog Alarm.	" 19, 1903	700 00
Duncan, H. G.	Wilson Channel Range	1905	350 00
Ead, Mrs. C.	Port Stanley	May 15, 1890	300 00
Felan, Maurice	Oakville	April 28, 1894	150 00
Fortier, David H. A.	Port Colborne Range Lights and Fog Alarm	" 11, 1865	550 00
Fellowes, W. R.	Rondeau Harbour	Dec. 18, 1888	350 00
Filiatreault, Thomas	Coteau Landing	May 27, 1890	140 00
Fjeldsted, T.	Gull Harbour, Lake Winnipeg	" 6, 1904	150 00
Gloude, Benjamin	Dorval	Sept. 7, 1872	300 00
Gillespie, Wm	Wolfe Island	Mar. 16, 1885	250 00
Gauthier, Charles	St. Placide	May 1, 1874	140 00
Gordon, Robert	Cobourg	" 16, 1883	180 00
Griffith, Alfred H.	Giant Tomb	Sept. 17, 1898	250 00
Gourley, jr., John	Manitowaning	July 3, 1900	150 00
Gilbert, Philip	Warton Pole Light	Sept. 5, 1902	75 00
Graham, W.	Graham Front Light on Wharf	Dec. 19, 1904	75 00
Gaulin, E. J.	Pelee Passage	Aug. 2, 1904	500 00
Hackett, Mrs. A.	Bois Blanc	June 27, 1901	435 00
Hill, Thomas H.	Lancaster	Aug. 27, 1877	325 00
Haitze, Jean	Lonely Island	May 11, 1885	450 00
Hunter, David	Port Dalhousie	Oct. 29, 1879	350 00
Hawkins, David B.	Peninsula Harbour	Aug. 31, 1891	500 00
Harvey, James	Thessalon	Nov. 23, 1897	300 00
Hamilton, Thomas	Pie Island	April 15, 1899	300 00
Humes, David	Stribling Point Range	Aug. 27, 1902	180 00
Hughes, Wm.	Red River, Man.	Feb. 12, 1892	350 00
Johnson, Isaac S.	Cherry Island	Nov. 5, 1883	300 00
Jeffrey, Carson	Nigger Island Shoal	April 28, 1894	200 00
Kingston City Clock	Corporation of Kingston	1844	†100 00
King, Peter	Slate Island Light	Nov. 17, 1903	400 00
Knapp, Charles	Lion's Head Wharf Light	Oct. 28, 1903	75 00
Kilroy, Wm.	Arnprior Island	1905	150 00
King, jr., J. J.	Sulphur Island	May 15, 1905	300 00
Lambert, Wm. McGregor	Chantry Island and Light on Breakwater at Southampton	Oct. 1, 1880	500 00
Labelle, Louis	Deep River Islet	May 5, 1897	100 00
Léger, Thomas	Lower End Lake St. Louis Lights and Light-ships	Jan. 5, 1905	500 00
Lamondin, Louis	Gereaux Island	July 30, 1901	375 00
Lowe, Robert	Thornbury	April 12, 1887	80 00
Lowry, Robert M.	Port Elgin	Mar. 14, 1896	80 00
Lumsden, A. C.	Lake Temiskaming Lights	Oct. 6, 1899	250 00
Lidwill, John R.	Pelee Island	July 10, 1899	300 00
Lawson, Frank R.	Middle Island	Mar. 21, 1905	350 00
Lacroix, H.	Oka	Nov. —, 1898	130 00
Laberge, Albert	Green Shoal	May 20, 1902	200 00
Leblanc, J. B.	Lower Narrows	Jan. 4, 1904	100 00
Lunan, J. W.	Collingwood Lights	" 2, 1904	350 00
Langlois, L. C.	Pelee Passage	Feb. 25, 1904	500 00
Lundy, Thos.	Burlington Bay Lights	May 2, 1905	350 00

*An annual allowance of \$60 as house rent. †An additional \$20 per month during winter when light in operation. ‡ Allowance of \$3.50 per 1,000 ft. for gas. †† During season of navigation.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

ABOVE MONTREAL—Continued.

Name.	Station.	Appointed.	Salary.
			\$ cts.
Manson, Wm. A.	Pelee Passage, Lake Erie, Light and Steam Siren	Nov. 11, 1902.	650 00
Munroe, John Jacob	Lancaster Bar	June 8, 1892.	300 00
Masson, Lucas H.	Point aux Anglais	Sept. 4, 1897.	200 00
Mongeon, Charles A.	Way Shoal	May 23, 1887.	100 00
Matheson, Norman	Cape Robert, Algoma	Oct. 7, 1896.	350 00
Miller, John	Port Crédit	Dec. 16, 1897.	150 00
Morrisson, Jonathan	Ferris Island	Mar. 24, 1898.	200 00
Matheson, Angus	Gore Bay	July 10, 1903.	350 00
Manson, John	Colchester Reef, Light and Fog Bell	May 1, 1880.	850 00
Miron, Louis	Gargantua	Oct. 26, 1899.	450 00
Murray, William	Barrifield Common Range	May 17, 1900.	150 00
Montgomery, William	Eastern Gap Light, Toronto	Oct. 16, 1895.	300 00
Mason, F. E.	West End of Long Point	June 3, 1901.	400 00
Manders, Samuel	Lower Allumette Lake	July 26, 1901.	100 00
Martin, Edward	Michael Point	June 3, 1902.	120 00
Masters, Fred	Niagara-on-the-Lake Fog Alarm	Nov. 12, 1904.	400 00
Martin, Mrs. E. A.	Boyd Island	Jan. 6, 1905.	250 00
Matheson, Daniel	Black Bear Island, Lake Winnipeg	June 22, 1899.	200 00
McKenzie, John	Presqu'Isle, Cwen Sound, Georgian Bay	July 14, 1873.	200 00
McDonald, Murdock	Point Clark	Jan. 8, 1897.	400 00
McDonald, Amos	Salmon or Wicked Point	July 12, 1897.	300 00
McKillop, Donald	St. Anicet	June 8, 1892.	230 00
McKay, Chas. S.	Battle Island	Aug. 27, 1877.	500 00
McKenzie, Wm.	Strawberry Island	May 4, 1893.	300 00
McLeod, Mrs. E.	McQuestion Point	Feb. 22, 1904.	100 00
McAulay, Donald	Saugeen	Mar. 16, 1899.	120 00
McDonald, Lauchlin D.	Mississagi Island	May 16, 1896.	450 00
McCool, James	Fort William Beacon Light, Ottawa River	" 23, 1887.	90 00
McDevitt, Chas.	Point au Baril Range	Mar. 1, 1897.	300 00
McKay, John	Lyal Island	Oct. 27, 1884.	450 00
McLean, Arch.	Owen Sound	Dec. 23, 1897.	150 00
McGaw, Thos.	Kincardine	June 13, 1899.	400 00
McDougall, Neil	Squaw Island	April 25, 1901.	200 00
McKinnon, A.	Point aux Pins Lights	May 16, 1904.	400 00
McLeod, Kenneth	Cove Island Light and Fog Alarm	June 19, 1903.	750 00
McMenemy, Robt.	Otter Island	Nov. 17, 1903.	400 00
McMaster, And.	Nine Mile Point Fog Alarm	April 1, 1900.	200 00
McPherson, Geo	Bishops Bay	Mar. 28, 1904.	150 00
McSherry, Patrick	Gibraltar Point	May 2, 1905.	400 00
McNab, D.	Isle Perrot	May 20, 1905.	100 00
McLay, D. L.	Stobes Bay Range	Aug. 25, 1904.	200 00
McKelvie, Geo	Eastern Gap Fog Alarm, Toronto	June 13, 1905.	750 00
McKenzie, G. M.	Tolomaville Wharf Light	Feb. 3, 1905.	50 00
McKinnie, John	Niagara-on-the-Lake Range	Mar. 30, 1905.	150 00
McKechnie, M.	Providence Bay	June 27, 1904.	250 00
Quelette, Godfrey	Buckom Point	Feb. 23, 1884.	200 00
O'Connor, P.	Rainy River Lights	June 23, 1904.	250 00
O'Brien, Wm.	Pickering	April 14, 1904.	125 00
Ottawa Electric Light Co.	Britannia	Oct. 1, 1904.	150 00
Purvis, John	Great Duck Island Light and Fog Alarm	Mar. 9, 1898.	700 00
Pettypiece, Stephen	Lime Kiln Crossing	May 11, 1888.	350 00
Prosser, John	Fox Island	Sept. 14, 1896.	250 00
Proudfoot, Thos.	East Neebish, Upper Range	Nov. 4, 1898.	100 00
Poirier, Siméon	Point à Cadieux	May 4, 1904.	150 00
Port Darlington Co.	Darlington		100 00
Plunkett, H. E.	Plunkett Island, Lake Winnipeg	Oct. 12, 1884.	350 00
Rathbun Co.	Deseronto	Oct. 14, 1884.	200 00
Root, Albert	Grenadier Island	Dec. 15, 1863.	250 00
Roddick, Robert	Peter Rock, or Gull Island	Mar. 23, 1872.	500 00
Rowe, Geo. Albert	Telegraph Island	Oct. 25, 1895.	200 00

* Per month while light in operation.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

ABOVE MONTREAL—*Concluded.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Redmond, William H.	Gravenhurst Narrows.	June 18, 1894.	100 00
Rains, Evan.	Shoal Point, Algoma.	Nov. 24, 1884.	250 00
Rains, A. M.	Sailors' Encampment.	Aug. 1892.	64 00
Rains, W. W.	Rains Wharf Range.	" 1892.	7 00
Ritchie, John A.	South Bay Mouth Range.	Sept. 10, 1903.	150 00
Rowan, James.	Morris or Victoria Island.	Dec. 3, 1898.	120 00
Richardson, Wm. T.	Michipicoten Hr., Algoma.	Sept. 27, 1900.	200 00
Richardson, Thomas J.	Western Islands Light and Fog Alarm.	June 27, 1901.	800 00
Richmond, John A.	Snug Harbour Range.	Oct. 7, 1902.	350 00
Roussain, J. J.	Coppermine Point.	June 27, 1904.	100 00
Roque, Frank.	Killarney Lights.	Feb. 28, 1905.	400 00
Sommers, Napoleon.	Midland Point Range.	June 19, 1900.	200 00
Shannon, William.	Grosse Point or Valleyfield.	Sept. 27, 1866.	425 00
Shannon, George.	" "	" 27, 1866.	175 00
Seguin, Grégoire.	L'Original.	May 8, 1894.	100 00
Shaw, Thos. K.	Point Edward Range.	Aug. 29, 1903.	150 00
Smithers, R. O.	Mohawk Island.	Mar. 31, 1896.	*400 00
Sutherland, Jno.	Port Burwell.	June 18, 1894.	225 00
Schofield, Fergus.	Port Maitland.	April 10, 1871.	350 00
Simpson, Hedley V.	Brighton Ranges.	May 11, 1888.	540 00
Smith, H. E.	Presqu'Isle.	April 29, 1898.	350 00
Sullivan, Silas.	Baskins Wharf.	Dec. 22, 1896.	130 00
Sauvé, Honoré.	Caron Point.	Feb. 16, 1889.	60 00
Stoneburner, John A.	Dickinson Landing.	April 12, 1890.	100 00
Spencer, C. R.	Scotch Bonnet.	" 27, 1903.	350 00
Scott, Guy J.	Point Peter, Light and Fog Alarm.	June 6, 1901.	650 00
Scott, Wm. J.	Corunna Range.	April 23, 1901.	120 00
Stocker, Jos. L.	Ste. Anne de Bellevue.	May 20, 1902.	+125 00
Sweeney, Thomas.	Tomahawk Island.	Sept. 19, 1902.	200 00
Sicard, X.	Graham Range, Back Light.	April 29, 1905.	75 00
Taylor, Edward.	Jones Island Range, Parry Sound.	June 3, 1901.	550 00
Tebo, Joseph.	North Sister Rock.	May 20, 1902.	350 00
Veech, Stannes.	Nine Mile Point Light.	Mar. 7, 1894.	450 00
Vallée, Charles.	Hope Island.	April 20, 1899.	450 00
Vorce, Marcellus.	South Bay Point.	Nov. 21, 1902.	200 00
Webster, Chas.	Cabot Head, Light and Fog Alarm.	May 10, 1898.	650 00
Whitmarsh, John.	Snake Island.	July 18, 1900.	350 00
Weir, John C.	Belleville.	April 4, 1901.	200 00
Wemp, Daniel.	Centre Brother Island.	Jan. 9, 1901.	200 00
Wilson, Robt.	Campbell Island.	" 8, 1905.	150 00

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC.

Abel, Philias.	Barre à Boulard, Back Range.	June 23, 1903.	75 00
Arcand, Alfred.	Seven Islands, Light and Explosive Signal Station.	May 20, 1898.	650 00
Auger, A.	L'Islet, Richelieu.	Jan. 20, 1905.	150 00
Ascah, James.	Fame Point, Gaspé, Light and Fog Alarm.	Sept. 2, 1880.	700 00
Arseneau, Nectaire.	Etang du Nord.	July 21, 1891.	350 00
Arpin, Joseph.	Contrecoeur Course, Front Light.	April 22, 1904.	100 00
Bertrand, Louis.	Champlain, Back Pole Light.	Sept. 12, 1902.	60 00
Beaudet, Mrs. Laurent.	Lotbinière Front Light.	" 3, 1903.	80 00
Beaudet, George.	Lotbinière Back Light.	Jan. 4, 1883.	80 00
Beaudet, Charles.	Platon Range.	Aug. 24, 1894.	120 00

* Allowance \$10 per annum for boat service. † \$10 per annum boat service.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—Continued.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Bourque, Peter.....	Bird Rocks, Light and Explosive Signal Station	Nov. 27, 1896..	1,300	60
Bouilliane, Pierre.....	Lark Islet Light.....	Sept. 1, 1872..	400	00
Bertrand, Auguste.....	Macquereau Point.....	Dec. 21, 1877..	**300	00
Banville, Joseph.....	Matane Light.....	Feb. 1, 1897..	300	00
Bourget, F.....	Percé.....	Mar. 18, 1893..	200	00
Breton, Narcisse.....	Rich Point.....	May 16, 1896..	500	00
Bourget, Charles.....	Cape Despair.....	Nov. 1, 1897..	†400	00
Bisson, Wm.....	Grand River.....	Oct. 22, 1896..	‡150	00
Bouchard, Louls.....	Cape Salmon, Light and Fog Alarm.....	May 16, 1896..	600	00
Boucher, Louis.....	Isle aux Raisins Range.....	April 13, 1898..	240	00
Boulanger, H.....	St. Thomas Wharf and Back Range Light.....	" 4, 1898..	80	00
Bujold, Louis.....	Carleton.....	May 25, 1899..	300	00
Boisvert, Alcide.....	Cape Charles, Front Light.....	July 23, 1901..	150	00
Baron, Amedée.....	Cape Charles, Upper Back Light.....	June 26, 1901..	90	00
Bouchard, George.....	St. Irénée.....	Aug. 31, 1901..	\$40	00
Bousquet, Felix.....	Verchères Village Back Light.....	April 21, 1902..	70	00
Bilodeau, Joseph O.....	Bellechasse.....	June 15, 1903..	350	00
Bergeron, Nap.....	St. Antoine, Lotbinière Front Light.....	Mar. 21, 1902..	80	00
Bordua, Phileas.....	Ile Deslauriers, Front Light.....	April 21, 1902..	120	00
Bourdages, Pitre.....	Point Echouerie.....	July 25, 1903..	75	00
Boulliane, J. E.....	Point Noire Range Lights.....	Jan. 18, 1904..	200	00
Blanchet, J. G.....	Father Point, Fog Alarm.....	— 1904..	800	00
Brown, Charles.....	Pointe à-la-garde Lightship.....	June 26, 1904..	300	00
Brunelle, Jos.....	Batiscan.....	April 27, 1905..	80	00
Belanger, F. L.....	Ste. Félicite Fog Alarm.....	Jan. 14, 1905..	600	00
Carignan, P. L.....	Champlain Main Light.....	Oct. 1, 1902..	80	00
Cormier, Wm.....	Amherst Island.....	April 26, 1871..	350	00
Colton, P. J.....	Belle Isle, Light and Fog Alarm.....	Jan. 30, 1902..	*1,100	00
Côté, Luc.....	Cape Chat, Light and Explosive Signal Station	Dec. 3, 1901..	**500	00
Campbell, John W.....	Cape Norman, Light and Fog Alarm.....	April 12, 1890..	720	00
Costin, Eugène.....	Cape Rosier, Light and Fog Alarm.....	Nov. 4, 1890..	800	00
Chamberlain, H.....	Oak Point, Range Lights.....	April 19, 1900..	100	00
Collins, Geo. F.....	Entry Island, Magdalen Islands.....	July 30, 1901..	250	00
Chenel, John A.....	Grand Entry.....	" 4 1901..	50	00
Croteau, Télesphore.....	Ste. Croix, Front Range.....	Mar. 28, 1901..	70	00
Chicoine, Alphonse.....	Isle Bouchard Range, Back Light.....	April 23, 1902..	80	00
Chicoine, F. Xav.....	Verchères Traverse, Front Light.....	" 21, 1902..	80	00
Charbonneau, Phileas.....	" " Back Light.....	" 21, 1902..	70	00
Comtois, Joseph.....	Isle Ste. Thérèse, Back Light, Isle Deslauriers, Range.....	Feb. 11, 1903..	80	00
Carrière, H.....	Boucherville, Isle St. Joseph.....	Aug. 26, 1903..	80	00
Caisse, Louis.....	Petite Traverse, Contrecoeur, Front Light.....	April 22, 1904..	100	00
Caron, Alphonse.....	Lower Traverse, Light and Fog Alarm.....	Oct. 11, 1902..	500	00
Coulombe, M.....	Chlorydormes.....	" 15, 1904..	100	00
Chartier, Adolphe.....	Hochelaga Lights, Montreal Harbour.....	Aug. 5, 1904..	25	00
Couillard, A.....	East Point, Anticosti, Lightship.....	May 27, 1904..	1,000	00
Chisholm, John.....	New Carlisle, Wharf Light.....	Aug. 1, 1903..		
Chevrier, P.....	Byron Island.....	June 23, 1905..	400	00
Cunningham dit Caudé, E.	Cap aux Corbeaux, Bay St. Paul, Wharf Light	— 1905..	60	00
Desmarais Phileas.....	River St. Francis.....	July 2, 1897..	†20	00
Demers, Antoine.....	Pointe à Basile, Back Light.....	" 22, 1904..	130	00
Douville, Elzéar.....	" Front Light.....	Feb. 6, 1904..	130	00
Doré, François.....	St. Antoine, Lotbinière, Back Light.....	Mar. 21, 1902..	120	00
Dubois, Louis.....	Isle à la Bague.....	April 14, 1903..	150	00
Dubois, Octave.....	Greenly Island, Light and Fog Alarm.....	Oct. 12, 1903..	800	00
Ducharme, Jos.....	St. Ours, Traverse.....	April 18, 1904..	100	00
Duval, Norbert.....	Contrecoeur Course, Back Light.....	" 22, 1904..	100	00
Daigle, Nap.....	Barre à Boulard, Front Range.....	May 28, 1904..	200	00
Desbiens, Eugène.....	Poste St. Martin, Front Light.....	April 12, 1905..	50	00

** Allowance \$20 per annum for blowing fog horn; \$12 per annum for keeping road in repair.
† Allowance \$20 per annum for blowing fog horn. ‡ Allowance \$30 per annum for blowing fog horn.
§ Per season of navigation.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Electric Light Company of Roberval.....	Roberval Beacon Lights.....	June 21, 1889..	60 00
Fournier, Alfred.....	Upper Traverse.....	April 14, 1900..	600 00
Fugère, Léandre.....	Bastican, Front Light.....	" 29, 1868..	80 00
Fiset, Jean H.....	Lake St. Peter, Lightship No. 2.....	" 22, 1875..	500 00
Fontaine, Edmond.....	Cape Bauld, Lighthouse and Fog Alarm.....	1905..	†800 00
Faffard, Victor.....	Point de Monts, Light & Explosive Signal Sta.....	Aug. 1, 1889..	††500 00
Farser, Pierre T.....	Red Islet.....	April 12, 1890..	\$450 00
Ferland, Nap.....	Ste. Petronille.....	Sept. 3, 1901..	150 00
Fletcher, James.....	Longue Pointe, Traverse.....	May 16, 1904..	125 00
Fournier, Arthur.....	Grande Vallée.....	Oct. 15, 1904..	100 00
Filteau, E.....	Ste. Emélie, Back Light.....	Mar. 16, 1905..	80 00
Geoffrion, Azarie.....	Varennas.....	May 1, 1903..	70 00
Giguère, Denis.....	Lavaltrie Range.....	" 24, 1870..	300 00
Grenier, Solomon.....	Newport Point.....	June 3, 1897..	150 00
Guyon, Joseph.....	Verchères Village, Front Light.....	April 21, 1902..	80 00
Gilbert, F.F.....	Rivière du Loup, Wharf Light.....	Sept. 22, 1902..	70 00
Gagné, François.....	L'Ange Gardien, Island Orleans, Front Light.....	Nov. 10, 1902..	70 00
Granier, Henri.....	Bersimis, Range Lights.....	Aug. 8, 1903..	100 00
Goudreault, Wm.....	Isle au Belier, Lake St. John.....	Oct. 30, 1901..	75 00
Girard, Henry.....	Murray Bay, Wharf Light.....	July 13, 1903..	50 00
Godbout, Joachim.....	St. Laurent, Island of Orleans.....	April 15, 1904..	300 00
Guyon, Ernest.....	Contrecoeur, Verchères Range, Back Light.....	Nov. 11, 1904..	125 00
Goudreau, Mrs. Luce.....	Rivière du Moulin, Back Light.....	May 9, 1905..	50 00
Hébert, Moïse Manuel dit.....	Cap de la Magdeleine, Lower Range, Front Lt.....	May 11, 1888..	80 00
Harvey, André.....	Chicoutimi Wharf Light.....	" 30, 1889..	40 00
Houde, Emile.....	Grondines Point Range, Back Light.....	June 20, 1904..	100 00
Irvine, John T. A.....	Red Island Lightship and Fog Whistle.....	Mar. 2, 1900..	*500 00
Kennedy, Thomas.....	Sandy Beach.....	Aug. 9, 1904..	400 00
Lafliche, Désiré.....	Lake St. Peter Lightship No. 1.....	April 12, 1887..	450 00
Lachapelle, Jean B.....	Repentigny, Front Light.....	Feb. 1, 1861..	75 00
Langlois, Antoine.....	River du Chêne, Langlais Point.....	July 11, 1888..	125 00
Laliberté, Arthur.....	Ste. Emélie, Front Range.....	Sept. 24, 1880..	90 00
Lord, Joseph.....	North of Halfway Point Range.....	May 5, 1903..	170 00
Laporte, Ivon.....	Ile Marie Light, Bouchard Range.....	April 21, 1902..	120 00
Lapointe, F. X.....	Isle à l'Aigle Range, Front Light.....	May 1, 1903..	100 00
Lavoie, M.....	Rivière Valin Range.....	1893..	80 00
LeHuguet, François.....	Cape Gaspé Light and Explosive Signal Station.....	Oct. 22, 1896..	650 00
Lindsay, Wm.....	Gaspé Wharf Light.....	June 14, 1900..	42 00
Lindsay, R. W.....	Green Island Light and Explosive Signal Station.....	Sept. 25, 1888..	650 00
Loisel, John.....	Paspébiac.....	Aug. 27, 1894..	†150 00
LeBlanc, Régis.....	White Island Reef Light-ship and Fog Whistle.....	Jan. 11, 1878..	†500 00
Lemieux, Z.....	South-west Point, Anticosti.....	July 10, 1900..	\$600 00
Lachance, Louis.....	St. John Island of Orleans.....	Sept. 26, 1896..	300 00
Leclerc, Geo.....	Pillars and Algernon Rock Lights.....	July 30, 1901..	650 00
Lavoie, F.....	Anse St. Jean Wharf Light.....	Mar. 13, 1889..	40 00
Levesque, Arthur.....	Grande Isle, Kamouraska.....	Feb. 19, 1901..	400 00
Leclerc, Auguste.....	Martin River.....	Sept. 3, 1902..	300 00
Lemieux, F. X.....	Barachois de Malbaie.....	Mar. 6, 1903..	60 00
Laprise, Emile.....	Anticosti South Point Light and Fog Alarm.....	April 18, 1903..	800 00
Levesque, Dom.....	Pointe aux Origneaux.....	Oct. 5, 1903..	350 00
Lepage, Joseph.....	St. Francis, Islands of Orleans, Front Light.....	April 20, 1876..	75 00
Lacroix, Frs. Joseph.....	Contrecoeur Traverse, Front Light.....	April 14, 1904..	75 00
Lacroix, Alfred.....	" " Back Light.....	July 26, 1904..	100 00

* Allowance \$100 per annum for horse keep. ** Allowance \$25 per annum for hauling supplies.
† Allowance \$700 for two assistants and \$200 for board during season of navigation. Per month during season of navigation. ‡ With a crew for the vessel paid by Department † Per month during season of navigation. †† Allowance of \$75 per annum for horse keep. †† Allowance of \$50 per annum for horse keep.
§ Allowance of \$50 per annum for water, &c.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—Continued.

Name.	Station.	Appointed.	Salary.
			\$ cts.
Laporte, J. B.....	St. Ours Traverse, Front Light	— — 1904..	125 00
Lefrançois, H.	Ste. Anne des Monts	Oct. 15, 1904..	100 00
Letourneau, Louis.....	Mont Louis	" 15, 1904..	100 00
Lobel, Esdras.	Lower Traverse Lightship	April 21, 1900..	2,300 00
Labrousche, W.....	Monté du Lac or Cap Brulé	May 2, 1905..	400 00
Lavallée, J..	Flower Island, Nfld.....	April 12, 1905..	600 00
Manseau, François.....	Port St. Francis	Mar. 27, 1900..	240 00
Montplaisir, Dom.....	Cap de la Magdeleine, Upper Range	July 20, 1904..	175 00
Malo, Joseph.....	Isle Ste. Thérèse, Lower Range.	Feb. 1, 1897..	130 00
Marchand, Ferdinand.....	Citrouille Point.....	April 27, 1896..	200 00
Martin, Paul.	St. Valentiné Range.....	April 28, 1873..	150 00
Molson, Mrs. Alexander.....	Molson's Island, Lake Memphremagog.....	From year to year	**2 50
	Anticosti, West Point, Light & Explosive Signal		
Malouin, Alfred.....	Station	July 1, 1877..	††750 00
Martin, Jules G.	Little Metis.	Dec. 23, 1879..	††300 00
Marceau, Louis.....	St. Francis, Island of Orleans, Back Light.....	April 1, 1884..	75 00
Mayrand, Eugène.....	Grondines, Upper Range, Front Light	June 20, 1904..	125 00
Morin, Hypolite.....	Long Pilgrim.	April 29, 1898..	§§340 00
Marcotte, Mrs. P. L.	Point Bleue, Lake St. John.....	Nov. 28, 1898..	40 00
Morin, Alex.	Rivière à la Pipe	Oct. 3, 1901..	50 00
Morin, Alfred	Anse aux Griffons.....	" 15, 1904..	100 00
Martel, C. E.	Georgeville Wharf Light.....	May 19, 1905..	**1 50
McGee, James A.....	Ash and Bloody Island.....	May 26, 1903..	200 00
McWilliam, John J.	Father Point Light.....	June 1, 1876..	*450 00
McInnis, George.....	Port Daniel.....	Oct. 7, 1902..	60 00
Paré, Olivier.....	L'Ange Gardien, Island of Orleans, Back Light.....	Nov. 10, 1902..	70 00
Pelletier, Tancrede.....	Egg Island.....	July 1, 1901..	500 00
Paquin, Sylva.....	Pointe du Lac.....	May 2, 1900..	100 00
Paul, Edouard.....	Isle de Grâce.....	Sept. 7, 1871..	240 00
Peters, D. E.....	Witch Shoal, Lake Memphremagog.	June 1, 1891..	†4 00
Peters, J. H.....	Black Point, Lake Memphremagog.....	" 1, 1891..	†1 50
Patterson, J. A.....	Wadleigh Point, Lake Memphremagog.....	" 1, 1891..	†1 50
Paquet, Pierre.....	Ste. Famille, Back Range, Orleans Channel.....	Oct. 19, 1885..	70 00
Pednault, Pierre.....	Isle aux Coudres, Wharf Light.....	April 14, 1896..	40 00
Poulin, Alfred	Ste. Famille, Island of Orleans, Front Light.....	" 26, 1898..	70 00
Pinault, Louis.....	Bicquette Island Light and Fog Alarm.....	Oct. 6, 1900..	700 00
Perrault, Henri.....	St. Pierre les Becquets.....	May 26, 1901..	70 00
Pilote, Auguste.....	Poste St. Martin, Back Light.....	..... 1885 ..	50 00
Reaves, Samuel.....	Ile Ste. Thérèse, Upper Range.....	Oct. 12, 1870 ..	270 00
Richelieu and Ontario Navigation Co	Sorel Wharf Lights		85 00
Rivet, Léon.....	Repentigny, Back Light	April 28, 1894..	75 00
Richard, Alphonse.....	Brandy Pots.....	Oct. 7, 1878..	400 00
Rennie, E. H.....	Cape Ray, Light and Fog Whistle.	" 19, 1884..	800 00
Roberge, C. Honoré.....	St. Pierre, Back Range, Orleans Channel.	" 19, 1885..	70 00
Rodrique, Joséphine	Portneuf.....	May 16, 1903..	250 00
Racette, Widow of D.....	Ste. Croix, Back Range.	Dec. — 1900..	70 00
Roy, Charles..	Bellerive Park Lights, Montreal Harbour.....	Aug. 5, 1904 ..	\$25 00
St. Laurent, E.....	Petite Traverse Contrecoeur, Back Light.....	April 22, 1904 ..	100 00
Sailvail, Omer	Isle à la Pierre.....	May 6, 1897 ..	220 00
Savarie, Eusèbe.....	Isle à l'Aigle, Back Range Light.....	" 1, 1903..	100 00
Savard, Dorilas.....	Savards Range.....		80 00
Sasseville, F. J.	Cape Magdalen, Light and Fog Whistle..	June 9, 1886..	700 00
Ste. Croix, George	Point Peter.....	Oct. 22, 1896..	450 00

* Allowance of \$1,900 per annum for assistance of engineer and necessary crew. † Allowance, \$30 per annum for blowing foghorn. ‡ Allowance \$2,300 per annum for assistance of Engineer and necessary crew. § Allowance \$50 per annum for horse keep ** Per week during session of navigation. †† Allowance of \$50 per annum for horse keep. ‡‡ Allowance of \$20 per annum for horse keep. §§ Allowance of \$68 per annum, &c.

* Allowance of \$10 per annum for water. † Per week during season of navigation. § Per month during season of navigation. ‡ Allowance \$50 per annum for horse keep.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Concluded.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Savard, Jno.....	River Caribou Front Light	Aug. — 1898..	50 00
Simard, H.....	" Back Light.....		50 00
Sauvageau, Charles.....	Grondines Point Range, Front Light.....	June 20, 1904..	250 00
Sauvageau, Jos.....	Grondines Upper Range, Back Light.....	" 20, 1904..	100 00
Samuel, André.....	Fox River.....	Oct. 15, 1904..	100 00
Thurber, Mrs. Wm.....	Ste. Croix.....	March 28, 1901..	175 00
Tremblay, W. T.....	Goose Cape.....	April 4, 1888..	250 00
Tremblay, Edmond.....	Portneuf en bas.....	May 16, 1903..	300 00
Tremblay, George.....	River du Moulin, Front Light	Sept. 19, 1889..	50 00
Tremblay, Pitre.....	St. Alphonse Wharf Light.....	June 19, 1895..	40 00
Tremblay, Henry.....	Cap à l'Aigle Wharf Light.....	Feb. 6, 1896..	40 00
Tremblay, Thomas.....	Bay St. Paul.....	Oct. 25, 1898..	250 00
Tremblay, Alexis.....	Heath or East Point, Anticosti, Light and Ex- plosive Signal station.....	July 25, 1900..	‡600 00
Tremblay, Magloire.....	Les Eboulements Wharf Light	April 27, 1902 ..	50 00
Tétreault, Honoré.....	Contrecoeur, Verchères Range, Front Light.....	Nov. 11, 1904 ..	125 00
Tessier, Armand.....	Pointe Bleue.....	June 9, 1904..	40 00
Thomas, Paul.....	Belle Isle, North End, Light and Fog Alarm.....	July 8, 1904..	1,100 00
Toupin, P.....	Cape Madeleine, Lower Range, Back Light....	April 26, 1905..	80 00
Vigneau, Placide	Perroquet Island.....	Sept. 19, 1892..	600 00
Vézina, Olivier.....	St. Pierre, Front Range, Orleans Channel....	Oct. 28, 1897..	70 00
Vézina, Désiré.....	Crane Island.....	April 26, 1904..	320 00
Whitman, Wm. Gunn.....	Lacolle Range.....	Jan. 18, 1904..	150 00
Wheeler, W.....	Lead Mines, Lake Memphremagog.....	June 1, 1891..	*1 50
Wyatt, Thomas M.....	Amour Point, Forteau Bay, Light and Fog Alarm.....	Oct. 18, 1889..	‡1,100 00
Willett, B. V.....	New Richmond, Duthie Point.....	" 16, 1903..	60 00
Weaner, B.....	Lake St. Peter Light ship No. 3	May, 7, 1904..	400 00

NEW BRUNSWICK.

Arseneau, James.....	Dalhousie Harbour	June 18, 1894..	100 00
Allain, Joseph	Hay Island Beacon Light.....	May 21, 1895..	150 00
Balmer, Matthew.....	Oak Point, St. John River.	April 27, 1900..	80 00
Barbour, Jas. G.....	Cape Enrage Light and Fog Alarm.....	May 11, 1888..	800 00
Bent, A. J. Percy.....	Jourimain.....	Jan. 25, 1901..	300 00
Blacklock, Fred. G.....	Cape Spencer	Mar. 2, 1888..	400 00
Brown, Charles.....	Quaco West Head Light.....	Nov. 25, 1884..	400 00
Bradshaw, L. B.....	Quaco West Head Fog Alarm.....	Aug. 2, 1887..	400 00
Brune, John David.....	Goose Lake.....	May 11, 1888..	‡250 00
Boudreau, Jos. B.....	Petit Rocher.....	Feb. 26, 1896..	150 00
Blakley, Lawrence.....	Harper Point.....	Sept. 9, 1887..	75 00
Bellemore, F.....	Dipper Harbour.....	Mar. 12, 1895..	100 00
Belliveau, A. P.....	Fort Folly Point	June 23, 1903..	225 00
Brennan, Robert	Oromocto	Mar. 18, 1903..	80 00
Belding, R. L.....	Lepreau Light.....	June 30, 1905..	550 00
Basque, F. D.....	North Tracadie Range	Aug. 20, 1904..	275 00
Cochran, Fredk. M.....	Quaco Pier Light.....	Mar. 25, 1892..	100 00
Cummings, Geo.....	Campbellton Range Light	Jan. 1, 1880..	100 00
Chapman, James.....	Baie du Vin Island Range Light.....	July 24, 1882..	200 00
Crandall, D. H.....	Greys Point Pole Light.....	April 13, 1900 ..	70 00
Carney, John W.....	Perry Point	Sept. 25, 1900..	80 00
Copp, A. B.....	Anderson Hollow.....	Mar. 30, 1903..	100 00
Cornier, Jadus P.....	Buctouche Bar.....	July 26, 1902..	200 00
Corey, Chas. H.....	Head Harbour Fog Alarm.....	June 15, 1903..	700 00
Chaffey, Harry V.....	Cherry Island Fog Bell.....	Aug. 7, 1903..	150 00

* Per week during season of navigation. † Allowance of \$75 per annum for horse keep. ‡ Allowance of \$12 per annum for supplying water.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

NEW BRUNSWICK—Continued.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Dickson, Elia C.....	Pea Point.....	Nov. 16, 1898..	250	00
Delaney, John.....	Grand Beach Lights.....	Oct. 7, 1880..	125	00
Dalzell, Geo. Y.....	Swallow Tail.....	Mar. 18, 1893..	400	00
Dinsmore, Samuel G.....	Big Duck Island Fog Alarm.....	July 5, 1886..	550	00
DeGrace, John.....	Indian Point.....	June 4, 1889..	150	00
Day, W. A.....	Belyea Point.....	Sept. 20, 1899..	90	00
Daigle, U. D.....	Black Lands Gully.....	July 13, 1903..	100	00
Daigle, Victor.....	Sapin Point.....	May 28, 1903..	25	00
Doucett, Fred. F.....	Caraquet Front Range Light.....	Oct. 14, 1903..	50	00
Dalzell, Coleman, Grant.....	Gannet Rock and Explosive Signal Station.....	July 1, 1904..	700	00
Dakin, Lloyd Chas.....	Grand Harbour.....	May 2, 1904..	400	00
Egan, Edward H.	Belloni Point.....	May 17, 1902..	100	00
Eldridge, John M.....	Drews Head, Beaver Harbour.....	" 2, 1904..	250	00
Frankland, Louis.....	Gull Cove.....	Nov. 14, 1902..	80	00
Frawley, Frank.....	Lepreau Fog Alarm.....	June 30, 1905..	900	00
Flewelling, Mrs. M.....	Flewelling Landing.....	April 12, 1890..	80	00
Fanjoy, William.....	Fanjoy Point, Grand Lake.....	Dec. 15, 1897..	80	00
Ferguson, W. G.....	South Tracadie.....	Mar. 23, 1898..	150	00
Fox, Fraser.....	Gagetown, St. John River.....	April 22, 1904..	80	00
Fitzgerald, Warren.....	Head Harbour Light.....	June 29, 1904..	300	00
Gould, Francis T.....	Shediac North Channel Range.....	Jan. 13, 1899..	70	00
Gregg, Wilson.....	St. John Harbour Beacon.....	1901..	350	00
Hendry, Mrs. A. M.....	Hendry Farm.....	April 28, 1899..	80	00
Hayden, Michael.....	Pokemouche.....	Oct. 17, 1888..	300	00
Henderson, Arthur.....	Midjic Bluff.....	" 4, 1894..	200	00
Hamm, Chas. P.....	Musquash.....	Jan. 14, 1879..	300	00
Helms, Geo.....	Letite Passage Fog Whistle.....	May 3, 1882..	*580	00
Hachey, Octave.....	Pokesudie Island.....	July 12, 1881..	180	00
Harvey, W. L.....	Machias Seal Island Light and Fog Alarm.....	" 8, 1904..	1,000	00
Hannah, Mrs. B. G.....	Spruce Point.....	Sept. 15, 1892..	120	00
Harts, Thos.....	Shediac Harbour Lights.....	Feb. 17, 1905..	80	00
Hooley, John.....	Tiner Point Fog Alarm.....	June 30, 1905..	500	00
Ingalls, Turner.....	Southwest Head, Grand Manan.....	Dec. 4, 1900..	500	00
Kilpatrick, Joseph.....	Passamaquoddy Bay.....	Feb. 3, 1898..	350	00
Lantaigne, Gervais.....	Caraquet Island.....	June 16, 1888..	200	00
Leblanc, Charles P.....	Cassie Point.....	May 4, 1872..	250	00
Looney, Thos. E.....	Greenhead, St. John River.....	July 14, 1886..	200	00
Lord, Linwood.....	Southwest Wolf Island.....	April 22, 1903..	500	00
Lockhart, Edwin.....	Ward Point.....	Oct. 20, 1903..	80	00
Legère, P. L.....	Caraquet Back Range Light.....	" 14, 1903..	50	00
Mills, George.....	Fox Island, N. W. Point.....	June 23, 1897..	200	00
Morrison, Peter.....	Oak Point Lights, Miramichi River..	July 24, 1882..	100	00
Morrison, Peter, Jr.....	Portage Island.....	May 17, 1892..	300	00
Morrison, Duncan.....	Sheldrake Island Lights.....	Feb. 25, 1880..	300	00
Maillet, D. O.....	Buctouche Inner Range.....	July 7, 1883..	150	00
Matheson, R. B.....	Newcastle.....	April 18, 1898..	100	00
Murray, Michael.....	Middle Island.....	" 10, 1902..	200	00
Maloney, Wm.....	Marks Point.....	Nov. 7, 1903..	120	00
McLeod, J. H.....	Bliss Island.....	Oct. 17, 1900..	350	00
McLennan, Kenneth.....	Escuminac Light and Fog Alarm.....	Mar. 7, 1892..	750	00
McIntosh, Chas.....	Lower Neguac Wharf Lights.....	Dec. 10, 1892..	100	00
McBaine, Alex.....	Cox Point, Grand Lake.....	May 6, 1898..	80	00
Macdonald, R. P.....	Musquash Island.....	Jan. 28, 1901..	80	00
McMann, Robert Harvey.....	McMann Point.....	Nov. 2, 1901..	80	00
McNeil, Henry H.....	Dalhousie Beacon Lights and Douglas Island Lt.	Jan. 1, 1880..	250	00
McConnell, J. Robert.....	Miscou Gully.....	Sept. 9, 1887..	100	00
McLean, R.....	Miramichi Bay Lt. Ship.....	April 12, 1902..	‡400	00

* Allowance \$50 for keeping light. ‡ Allowance, \$300 for assistance.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

NEW BRUNSWICK—*Concluded.*

Name.	Station.	Appointed.	Salary.
			s. cts.
Nevers, George F....	Jemseg.	Nov. 24, 1884..	80 00
Preston, S..	Preston Beach Lights ..	July 11, 1889..	125 00
Pendlebury, Wm. J.....	St. Andrews.....	April 10, 1889..	250 00
Pickett, Robert E.....	Palmer's Landing Wharf Light ..	May 11, 1897..	80 00
Parker, Alvin.....	Mulholland Point ..	June 13, 1901 ..	200 00
Palmer, E. B. .	Hampstead Wharf.....	Nov. 6, 1900..	80 00
Russell, James R.....	Grindstone Island Light and Fog Alarm.	Jan. 13, 1899 ..	700 00
Robichaud, Joseph L.....	Miscou Light and Fog Whistle ..	Nov. 11, 1902..	800 00
Robinson, John.....	Neguac Main Light.....	June 30, 1896..	150 00
Richard, Peter F.	Richibuctou Head ..	May 30, 1895..	185 00
Robertson, Charles M.....	Robertson Point, Grand Lake.....	June 30, 1897..	80 00
Robertson, Meier.....	Shediac Island Range.....	Dec. 29, 1873..	250 00
Ross, Elijah.....	Negro Point.....	Mar. 5, 1878..	400 00
Robichaud, Jude ..	Richibuctou Channel Range.....	June 16, 1902..	200 00
Robichaud, Henri B.	Buctouche Range.....	June 21, 1884..	150 00
Roherty, J. A.	Little Belledune ..	Feb. 21, 1905..	100 00
Richards, D. L.	Partridge Island Light and Fog Alarm.....	July 19, 1900..	800 00
Robertson, J. A. D.	Heron Island.....	April 1, 1902..	200 00
Robichaud, Mrs. A.....	Big Shippegan.....	July 8, 1904..	280 00
Richard, Jos. F.....	Richibuctou Bar Outer Range.....	June 16, 1902..	150 00
Sutherland, Geo. C ..	Bathurst Harbour Range..	Mar. 20, 1882..	200 00
Scott, Mrs. Ed..	Stonehaven ..	July 8, 1904..	100 00
Spragg, T. W.....	Hatfield Point ..	June 27, 1903..	80 00
Tatton, Geo. T.	Long Eddy Point Fog Whistle, Grand Manan.	Oct. 16, 1866..	750 00
True, John Howard.....	Wilmot Bluff ..	Sept. 12, 1899..	80 00
Upton, Robert.....	Bridge Point.....	" 11, 1899..	80 00
Williston, Seymour.	Swashway Range, Fox Island ..	June 4, 1902..	300 00
Wagner, Richard ..	Sand Point, St. John River ..	" 7, 1883..	80 00
Williams, Forrest W.....	Williams Landing.....	May 11, 1897..	80 00

NOVA SCOTIA.

Amero, Chas. A.....	Argyle.....	Nov. 9, 1897..	400 00
Amero, Geo. D.....	Pubnico ..	Feb. 6, 1893..	240 00
Amirault, James.....	Sissiboo.....	July 11, 1899..	200 00
Brown, T. J.....	Little Dyke.....	..... 1882..	25 00
Beaman, Edwin.....	Digby Pier.....	May 29, 1897..	100 00
Bonner, John Charles.....	Point Aconi.....	Nov. 6, 1903..	200 00
Burgess, Watson.....	Port l'Hebert ..	July 26, 1892..	150 00
Boutillier, R. J., supt....	Sable Island Humane Est.	Nov. 13, 1884..	*700 00
Boutillier, Henry ..	Indian Harbour, Paddy's Head..	June 6, 1901..	150 00
Bollong, James ..	Pope Harbour.....	Aug. 6, 1877..	300 00
Bourgeois, Philip ..	Cheticamp Range ..	May 23, 1898..	150 00
Boudrot, B.....	Paulamon, Hawk Islet ..	Dec. 7, 1904..	250 00
Baker, Thomas ..	Peases Island ..	May 19, 1879..	350 00
Brackett, Wm.....	Herring Cove.....	Aug. 28, 1897..	100 00
Belliveau, John H.....	Belliveau Cove.....	Feb. 16, 1889 ..	80 00
Brownell, Luther ..	Cold Spring Head.....	Mar. 27, 1901..	120 00
Buchanan, Angus A....	Neil Harbour ..	Aug. 14, 1899..	150 00
Buckman, Chas.....	Grand Passage ..	Jan. 7, 1901..	250 00
Boudreau, W. C....	Port Felix.....	July 16, 1902..	250 00
Burke, Henry.....	Country Harbour, Green Island ..	June 11, 1902..	400 00
Burke, Martin.....	Bourgeois Inlet ..	Dec. 1, 1902..	60 00

*With board for self and family and assistants and allowance for salaries of staff.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

NOVA SCOTIA—Continued.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Burns, E. M.	Wedge Island	July 6, 1904	400	00
Burgess, Lewis E.	Walton Harbour	" 13, 1903	150	00
Breen, Michael	Flint Head	Aug. 20, 1904	450	00
Bishop, F. W.	Porters Point	April 29, 1904	100	00
Baker, John	Mary-Joseph	Jan. 6, 1905	300	00
Buchanan, M.	Munroe's Point		150	00
Boyle, Geo.	Wallace Harbour Range	May 23, 1905	150	00
Chiasson, Germain	Caveau Point Range Lights	Aug. 20, 1897	150	00
Chiasson, Joseph P.	Grand Etang, Inverness	May 21, 1901	60	00
Creighton, H. H.	Creighton Head	" 6, 1874	200	00
Connington, Thomas	Louisburg Range Lights	Oct. 26, 1897	200	00
Crowell, John	Seal Island Light and Fog Alarm	" 14, 1899	800	00
Campbell, John M., supt.	St. Paul Island Humane Establishment	Nov. 16, 1904	700	00
Campbell, S. C.	St. Paul Island Fog Alarm	June 23, 1905	500	00
Campbell, J. O.	Port Mouton	April 29, 1898	300	00
Comeau, Louis C.	Metegham River	Oct. 12, 1875	100	00
Campbell, John P.	Red Islands, C.B.	Nov. 30, 1901	120	00
Croucher, George A.	Croucher Island	Jan. 31, 1883	300	00
Clough, Daniel	Grand Dique Pole Light	July 4, 1884	60	00
Clory, Abraham	Glasgow Point	" 25, 1894	150	00
Coolen, Albert S.	Hubbard Cove	Oct. 31, 1903	250	00
Cameron, L. G.	Beaver Harbour	Feb. 15, 1902	150	00
Christian, P. E.	Betty Island	June 29, 1904	500	00
Creelman, Samuel	Port au Pique	May 2, 1901	25	00
Campbell, D. A.	Louisburg Fog Alarm	Mar. 20, 1902	500	00
Cunningham, A. H.	Cape Sable Light and Fog Alarm	July 16, 1902	800	00
Cohoon, Havelock	Cranberry Island Light and Fog Alarm	Sept. 7, 1903	800	00
Corbett, George	Port Larue	May 31, 1904	260	00
Clark, F. R.	Borden Wharf	April 29, 1904	100	00
Doane, T. S.	Yarmouth or Cape Fourchu Light & Fog Alarm	Dec. 31, 1904	800	00
Doyle, Edward	Mabou Front Range Light	June 14, 1897	70	00
D'Entremont, W. H.	Abbot Harbour	May 22, 1888	90	00
Dewis, F. H. P.	Cap d'Or Fog Alarm	April 13, 1898	800	00
Duann, Wm. A.	Green Island, Richmond	May 20, 1902	500	00
Dunn, Miles A.	Margaree Harbour, Outer Range Light	" 12, 1903	50	00
Doane, F. H.	Bunker Island	July 27, 1904	350	00
Ellis, Wm. E.	Point Prim or Digby Gut, L. H. & F. W.	Mar. 8, 1875	800	00
Early, John	Margaretsville	Feb. 19, 1887	230	00
Elderkin, H. E.	Apple River Light & Fog Alarm	Mar. 31, 1905	700	00
Fraser, Alexr.	Great Bras d'Or Range, Back Light	Jan. 13, 1903	100	00
Fisher, Joel W.	Baccaro or Barrington	Aug. 8, 1893	400	00
Fulker, Wm. G.	Devil Island	May 3, 1886	420	00
Firth, Charles M.	Coffin Island, Liverpool	June 30, 1880	400	00
Foster, Israel C.	Port Medway	Oct. 13, 1892	260	00
Foster, Samuel T.	Port Medway Breakwater	Feb. 17, 1899	100	00
Foster, Geo. M.	Port George	Nov. 19, 1897	100	00
Fraser, John A.	Dover	Dec. 31, 1892	200	00
Faulkner, W. Y.	Burnt Coat	June 22, 1898	250	00
Findlay, John H.	Bull Point, Sambro Harbour	Dec. 7, 1899	100	00
Franklin, J. L.	Wolfville	April 4, 1902	100	00
Falconer, David	Caribou Island	Dec. 20, 1902	300	00
Finlayson, A. Wm.	St. Esprit Island	April 12, 1905	400	00
Gilkie, Henry A.	Sambro Light and Explosive Signal Station	Jan. 8, 1867	800	00
Giffin, Ira L.	Isaac Harbour	April 28, 1894	200	00
Gardner, Frederic T.	Brooklyn Pier Pole Light	Feb. 6, 1885	100	00
Gallant, Patrick	Little Loraine	Jan. 19, 1900	80	00
Goodwin, Jas. E.	Wood Harbour	Aug. 27, 1900	200	00
Garrison, S. H.	Peggy Point	Dec. 22, 1902	350	00
Gray, Peter Angus	Pennant Harbour	June 30, 1903	100	00

Allowance \$35 per month for assistance.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

NOVA SCOTIA—*Continued.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Harpell, Jeremiah....	Jeddore Harbour Range ..	Jan. 21, 1901..	200 00
Hopkins, Leslie.....	Bon Portage Island.....	Oct. 20, 1997..	350 00
Huntley, Charles H.....	Kingsport.....	June 30, 1890..	100 00
Hawley, Mathew.....	South Bay, Ingonish.	May 13, 1897..	140 00
Hardy, John.....	Gabarus	Nov. 22, 1890..	200 00
Hardy, Joseph W.....	Guion Island.....	Jan. 30, 1903..	400 00
Hinds, James.....	Victoria Beach.....	Mar. 7, 1901..	100 00
Hemlow, James S.....	Liscomb	Jan. 2, 1903..	300 00
Hunt, Wm.....	Bear River.....	April 10, 1905..	150 00
Hanlon, James P.....	Cranberry Island Light and Fog Alarm.....	.....	800 00
Ice-ton, Wm.....	Mauger Beach Light and Fog Alarm..	July 8, 1903..	800 00
Johnson, Edward.....	Chebucto Head Light and Fog Whistle.....	May 14, 1872..	800 00
Joyce, Simon.....	Seal Island, Lennox Passage.....	July 4, 1884..	150 00
Jamieson, Chas.....	Cape St. Lawrence	Sept. 21, 1893..	400 00
Jamieson, Geo. C.....	Cole Harbour Range.....	Oct. 21, 1898..	150 00
Knowlan, Alfred.....	Queensport.....	Nov. 13, 1902..	300 00
Kent, J. H.....	Musquodoboit Harbour Range Front Light....	April 29, 1904 ..	125 00
Kent, John.....	Musquodoboit Harbour, Back Light.	" 29, 1904..	100 90
Long, Joseph.....	Canso Harbour.....	Dec. 31, 1896..	250 00
Long, Joseph.....	False Passage Ledge.....	Aug 4, 1903..	50 00
Leblanc, Severin.....	Tusket River.	July 1, 1889..	250 00
Lowden, David.....	Pictou Harbour Range	" 12, 1897..	150 00
LaVashe, Wm.....	Arichat	Oct. 17, 1898..	250 00
Lyons, John H.....	Barrington East Bay Light-ship.	June 18, 1897..	600 00
Landry, Edward.....	Petit de Grat	Feb. 23, 1897..	200 00
Larkin, Ephraim.....	Stoddart Island.....	Mar. 18, 1896..	200 00
Leblanc, Benjamin.....	Candle Box Island.....	Nov. 1, 1892..	300 00
Larkin, N. C.	Lurcher Shoal Light-ship.....	" 1904..	†1,200 00
Leblanc, S. B.....	Grand Etang.....	Mar. 25, 1905..	60 00
Lynch, M.....	NcNab Island.....	June 23, 1905..	300 00
Lewis, A. J.....	Sydney Range Back Light.....	May 22, 1905..	150 00
Morrell, B. H.....	Brier Island, Fog Whistle	June 6, 1901..	400 00
Morrison, M. D.....	Black Rock Point.....	June 8, 1892..	250 00
Muise, Marcellin.....	Cheticamp.....	Nov. 27, 1896..	300 00
Misener, John E.....	Fort Point	May 16, 1896..	150 00
Moser, Samuel.....	Moser Island.....	Nov. 6, 1885..	350 00
Mullins, James	Mullins Point.....	June 8, 1892..	200 00
Munro, William.....	Pictou Bar.....	Nov. 22, 1890..	460 00
Murphy, Michael	Pomquet Island.....	Dec. 18, 1890..	350 00
Mundell, Edward.....	Eddy Point.....	July 28, 1903..	400 00
Martell, John T.....	Scatterie Light and Fog Whistle.....	" 30, 1897..	800 00
Murray, John	Cape George, Great Bras d'Or Lake.....	Nov. 3, 1882..	200 00
Munroe, William L.....	Three Top Island	Oct. 28, 1879..	325 00
Mitchell, John W.....	Jeddore Rock.....	Sept. 29, 1882..	400 00
Mitchell, Wm. A.....	Quaker Island.....	Feb. 19, 1896..	300 00
Matheson, Murdoch	Whycocomah Pole Light.	Sept. 11, 1884..	60 00
Morrison, Mrs. L.....	Freestone Islet Pole Light.....	June 5, 1897..	150 00
Mauger, John J.....	Cape LaRonde.....	Nov. 16, 1898..	300 00
Melanson, J. W.....	Gilbert Point	Aug. 18, 1904..	300 00
Morris, P. E.....	Isle Haute.....	" 2, 1904..	500 00
Morris, John H.....	Advocate Harbour.....	" 10, 1904..	250 00
Myrick, John	Cape Race, Newfoundland, L. H. & F. W.	Nov. 1, 1897..	1,000 00
Mathews, Wm. J.....	Canso Range	Dec. 17, 1904..	200 00
Martin, Charles	Catch Harbour.....	May 19, 1905 ..	80 00
McDonald, Robert.....	Carter Island.....	Jan. 4, 1886..	275 00
McRae, Roderick	Margaree or Sea Wolf Island.	Feb. 3, 1898..	100 00
McLellan, Rod'k.....	Margaree Harbour, Inner Range.....	June 8, 1901..	50 00
McKay, R.....	North Canso.....	Feb. 4, 1882..	350 00
McFarlane, Andrew	Pictou Island	June 8, 1892..	400 00

† Crew paid by Department.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

NOVA SCOTIA—Continued.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
McDonald, John A.	Port Hood	May 10, 1880..	280	00
McDonald, James	Point Tupper	Mar. 15, 1870..	300	00
McLean, H.	Gillis Point	Dec. 18, 1897..	150	00
McRae, Hector	McKenzie Point, Great Bras d'Or	Aug. 20, 1890..	160	00
McLeod, Norman	Cape North, Money Point.	Oct 14, 1899..	400	00
McNeil, F. X. S.	Iona	Nov. 16, 1901..	120	00.
McRae, Donald	Kidston Island	May 17, 1892..	200	00
McDonald, Norman	Gooseberry Island or Marjorie Isle	July 4, 1884..	100	00
McAskill, Kenneth.	Jerome Point	" 30, 1901..	250	00
McNeil, John C.	Piper Cove	Dec. 18, 1897..	120	00
McNeil, Laughlin	McNeil Beach, Great Bras d'Or	Aug. 6, 1884..	60	00
McFadyen, Malcolm	Mabou Back Range Light	April 17, 1891..	50	00
McNeil, Daniel Y.	Campbell Island, Victoria Co	July 30, 1903..	100	00
McEachern, A. L.	Cape George	Sept. 8, 1898..	450	00
McLeod, Murdoch	Pugwash	Dec. 10, 1897..	300	00
McKenna, John L.	Cape Roseway, Light and Fog Alarm	Mar. 31, 1899..	800	00
MacIntosh, James	Egg Island	July 28, 1899..	500	00
McDonald, Rod	Clarke Cove	April 22, 1904..	100	00
McLellan, Baxter	Spencer Island	July 21, 1904..	100	00
McLellan, Ingersoll L.	Economy Pole Light	May 16, 1899..	*6	00
McAdam, Hugh R.	Arisaig	Nov. 14, 1898..	100	00
McKay, Hector G.	Bird Island	May 21, 1901..	450	00
McLean, Malcolm	Great Bras d'Or Range, Front Light	Jan. 13, 1903..	100	00
McLennan, John	Henry Island	July 21, 1903..	400	00
McKenzie, John	South-west Point, St. Paul Island	Nov. 16, 1904..	400	00
Nass, Henry	Battery Point	Mar. 12, 1897..	300	00
Nickerson, Byron	Negro Island	July 26, 1897..	300	00
Nunn, George	Sydney South Bar	June 20, 1872..	300	00
Nicholson, Alex	St. Ann Harbour	" 5, 1905..	140	00
O'Leary, Wm. E.	Beaver Island	Feb. 22, 1900..	400	00
O'Hara, Theodore	Port Bickerton	Jan. 26, 1901..	150	00
Orchard, L. D.	Ragged Island Harbour, Gull Rock	" 1, 1877..	400	00
O'Neill, Thos.	Low Point Fog Alarm	May 2, 1904..	500	00
Paysant, Jason.	Little Hope Island	Oct. 22, 1901..	500	00
Pearl, Albert	Green Island off Margaret's Bay	Dec. 29, 1873..	500	00
Prince, Philip.	Louisburg Light	Nov. 8, 1897..	350	00
Peters, John G.	Low Point Light	Oct. 1, 1865..	460	00
Pettis, Wm.	Parrsboro'	Dec. 6, 1888..	340	00
Palmer, Howard	Wolfe Point	Oct. 14, 1899..	250	00
Palmer, H. W.	Lahave, Fort Point	May 22, 1878..	200	00
Perry, John	Sheet Rock	Dec. 17, 1878..	500	00
Perry, Levi	North East Harbour Range	June 17, 1899..	250	00
Peters, John N.	Brier Island Light	" 6, 1901..	400	00
Pope, John	Main-à-Dieu	Sept. 11, 1902..	300	00
Patterson, Wm.	Dartmouth	June 3, 1903..	100	00
Patterson, C. D.	West End of Picton Island	Mar. 29, 1905..	400	00
Robinson, Charles	Black Rock	Mar. 16, 1885..	330	00
Ruggles, Frank	Boars Head	May 24, 1901..	350	00
Robicheau, B. H.	Cape St. Mary	July 5, 1886..	350	00
Rathburn, Mrs. S. M.	Horton Bluff	Sept. 3, 1879..	250	00
Ross, Robert	George Island Light and Fog Bell	Jan. 18, 1876..	250	00
Roblee, Jacob V.	Shafner Point	May 29, 1897..	150	00
Riley, Simon W.	Annapolis	Mar. 7, 1892..	100	00
Richards, Stephen C.	Charlo Harbour Range	Nov. 4, 1901..	120	00
Ross, Alex. W.	Little Narrows	May 23, 1902..	120	00
Rogers, Lloyd	Amet Island	Nov. 11, 1902..	450	00
Rose, John	N. E. Point St. Paul Island	July 17, 1897..	400	00
Roney, Henry	Granville Centre	Feb. 24, 1904..	75	00
Rudderham, S.	Sydney Range Front Light	Jan. 15, 1905..	250	00

* Per month during season of navigation.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

NOVA SCOTIA—Concluded.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Smith, Eph.....	Sambro Inner Island Pole Light.....	Jan. 3, 1900..	100	00
Scott, M. C.....	Guysborough Harbour.....	April 19, 1884..	220	00
Spencer, Robt. A.....	Spencer Point.....	" 1, 1870..	125	00
Suthern, Edward W.....	Westport.....	" 12, 1890..	350	00
Saulnier, John H.....	Church Point, St. Mary Bay.....	Aug. 8, 1878..	200	00
Sampson, C.....	Ouetique Island.....	Mar. 12, 1875..	350	00
Strum, James A.....	Westhaver Island.....	Sept. 25, 1888..	200	00
Sollows, A. J.....	Port Maitland or Green Cove Pole Light.....	Dec. 28, 1900..	75	00
Sampson, Theodore.....	Beaver Island.....	Oct. 13, 1892..	80	00
Smith, Caleb.....	Salter Head Beacon Light.....	June 21, 1888..	60	00
Smith, Wm. B.....	Westhead, Cape Sable Island.....	April 12, 1890..	200	00
Simpson, John.....	Pictou Custom House.....	Dec. 10, 1901..	100	00
Smeltzer, John D.....	Hobson Island.....	April 10, 1900..	300	00
Smith, John Young.....	Page Island.....	Jan. 17, 1901..	150	00
Stevens, James Gordon.....	Sand Spit, Shelburne Harbour.....	Mar. 11, 1903..	280	00
Slaunwhite, S. P.....	Terence Bay.....	Oct. 13, 1903..	100	00
Theriault, D.....	Jerseyman Island.....	May 31, 1905..	300	00
Vance, Geo. W.....	Masstown or Debert.....	June 29, 1898..	25	00
Wolfe, Howard M.....	West Ironbound Island.....	June 22, 1895..	250	00
Wells, Jas.....	Whitehead Island.....	Oct. 20, 1897..	510	00
Wambold, Jas.....	Sheet Harbour Passage.....	May 11, 1887..	50	00
Webb, Patrick.....	Harbour au Bouche.....	Feb. 19, 1896..	250	00
Webber, Jas. M.....	Torbay.....	May 10, 1898..	300	00
Wynacht, W. H.....	Cross Island Light and Fog Whistle.....	April 13, 1898..	800	00
Warren, R. V.....	Ingonish Island.....	Sept. 17, 1903..	360	00
Walsh, John.....	Lingan Head.....	July 14, 1904..	200	00
Young, Uriah.....	Chester, or East Ironbound Island.....	Feb. 15, 1884..	400	00
Yorke, Freeman.....	Cape Sharpe Light and Fog Alarm.....	June 30, 1902..	750	00

PRINCE EDWARD ISLAND.

Anderson, Albert.....	St. Peters Range.....	July 25, 1900..	130	00
Allen, Joel S.....	Indian Point Pier.....	May 18, 1898..	375	00
Beaton, Angus S.....	Hazard Point Range, Back Light.....	Nov. 21, 1902..	60	00
Bell, Wm.....	Trvon Head.....	Mar. 17, 1905..	200	00
Clarke, Jesse George.....	Georgetown Range, Back Light.....	Aug. 14, 1901..	150	00
Champion, Wm.....	Northport Range Lights.....	Oct. 25, 1897..	100	00
Costain, Harold F.....	Miminegash Range, Back Light.....	May 19, 1897..	40	00
Connors, George.....	Georgetown, St. Andrew's Point.....	June 3, 1901..	150	00
Fraser, John.....	Summerside Range, Front Light.....	April 12, 1897..	100	00
Gaudet, Agape.....	Big Tignish Range.....	Aug. 30, 1897..	130	00
Gillis, Donald.....	Point Prim.....	Dec. 10, 1897..	300	00
Gallant, Jos. J. D.....	Cape Egmont.....	Oct. 21, 1902..	200	00
Hardy, Wm.....	Little Channel Range.....	July 26, 1875..	100	00
Howatt, Abner J.....	Leards Range, Outer Light, Crapaud.....	" 22, 1893..	100	00
Inman, James.....	Leards Range, Inner Light, Crapaud.....	Aug. 13, 1901..	100	00
Jordan, M. L.....	Cape Bear.....	April 12, 1905..	375	00
Kielly, John Andrew.....	Cove Head Lights.....	Nov. 27, 1890..	90	00
Lewis, James.....	Brighton Beach Range.....	March 1, 1899..	100	00
Lavie, J. D.....	Souris, East Lights.....	June 23, 1905..	300	00

5-6 EDWARD VII., A. 1906

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.

PRINCE EDWARD ISLAND—Concluded.

Name.	Station.	Appointed.	Salary.
			\$ cts.
Morrison, John D	Cardigan River.	Aug. 15, 1901..	100 00
McDonald, John W.....	Tracadie.....	May 24, 1901..	100 00
McRae, Daniel	Hazard Point Range, Front Light.....	April 6, 1900..	70 00
McDonald, Lauchlin	East Point Light and Fog Whistle	Jan. 18, 1901..	600 00
McDonald, John	Douse Point Range, Orwell.....	June 25, 1879..	70 00
McLeod, Jas. H	New London.....	Jan. 29, 1896..	125 00
McDonald, Wm.....	West Point.	Aug. 22, 1876..	300 00
McKay, Rodk. W.....	Wood Island	April —, 1899..	250 00
McDonald, Angus	Souris, East Light.....	Nov. 13, 1880..	300 00
McDonald, Jas. A.....	Savage Harbour Range.....	July 11, 1889..	100 00
McLeod, Lemuel.....	Murray Harbour Front Light.....	Dec. 21, 1897..	50 00
McPherson, Daniel W.....	Brush Wharf Range, Orwell.....	Jan. 13, 1899..	60 00
McNeil, Alex. S.....	Block House Point, Charlottetown	March 25, 1901..	340 00
O'Brien, Patrick	Miminegash Range, Front Light	May 14, 1897..	60 00
O'Ranaghan, Peter.....	Sea Cow Head.....	April 21, 1873..	250 00
Phee, James.....	North Point.....	Sept. 4, 1897..	300 00
Penny, Robert.....	Murray Harbour, Back Light.....	Nov. 11, 1897..	50 00
Pino, Joseph N	North or Grand Range, Rustico.....	Feb. 6, 1897..	125 00
Robertson, Alfred.....	Annandale Range.....	Oct. 5, 1898..	100 00
Sinclair, Wm	Fish Island.. . . .	March 8, 1897..	250 00
Stavart, Geo.	Summerside Range, Back Light.....	Sept. 8, 1895..	80 00
Steele, Colin.	Panmure Head.....	June 3, 1901..	250 00
Tuplin, Jas. C	Sandy Island, Cascumpec	May 5, 1897..	300 00
Taylor, Chas.....	Darnley Point Range Lights.....	June 14, 1897..	60 00
Taylor, Jas. W.....	St. Peters Island	May 1, 1897..	200 00
Wiggins, G. W. J.....	Darnley Point Range.....	Oct. 13, 1896..	100 00
Wright, Chas. L	Wright Range, Crapaud Harbour.....	June 14, 1894..	100 00
Young, James	Wood Island Harbour	Nov. 14, 1902..	80 00

BRITISH COLUMBIA.

Allison, Frank Fagan.....	Portier Pass	Nov. 12, 1902..	30 00
Brown, Wm. Henry	Ballinac Island	Oct. 3, 1901..	200 00
B. C. Electric R. R. Co	Brotchy Ledge.	1903..	200 00
Blanchard, B	The Sisters Light and Fog Alarm	Feb. 20, 1905..	600 00
Carpenter, C	Dryad Point	Nov. 7, 1899..	300 00
Crozier, James.....	Bare Point, Chemainus.	June 12, 1897..	168 00
Clarke, M. G	Entrance Island Light and Fog Whistle.....	Nov. 26, 1897..	900 00
Codville, James	Pointer Island	Dec. 26, 1899..	350 00
Croft, M. A	Discovery Island Light and Fog Whistle.....	April 1, 1902..	900 00
Campbell, W	Gallows Point and Middle Ground Beacons, Nanaimo Harbour.....		180 00
Daykin, William P	Carmanah Point Light and Fog Whistle	Nov. 4, 1890 .	1,200 00
Davidson, John.....	Cape Mudge	June 27, 1898..	420 00
Davies, J. Wm	Scarlet Point	May 2, 1905..	450 00
Eastwood, F. M.....	Race Rocks Light and Fog Whistle.....	Jan. 31, 1891..	1,200 00
Erwin, Walter.....	Point Atkinson Light and Fog Whistle.....	Oct. 5, 1880 .	1,000 00
Elsternan, F. W.....	Lawyer Island	April 1, 1905 .	600 00
Franklin, Wm. Thos..	Merry Island	Jan. 8, 1904..	360 00

* Per month.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Concluded.*

BRITISH COLUMBIA—*Concluded.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Georgeson, Henry	Active Pass Light and Fog Whistle	July 21, 1884..	900 00
Georgeson, James.....	Saturna Island, East Point	Oct. 26, 1889..	550 00
Grove, John.....	Prospect Point.....		300 00
Gallup, J. W.	Proctor.....	Jan. 1, 1900..	240 00
Gordon, Walter	Yellow Island	Sept. 27, 1901..	500 00
Georgeson, John.....	Walker Rock		240 00
Garrard, F. C.....	Lennard Island	Nov. 1, 1904..	1,000 00
Gillespie, W.....	Portlock Point.....	.. 1905..	460 00
Harrap, R	Coffin Islet and Danger Reef.....	Apr. 15, 1903..	300 00
Harrison, S. G	Berens Island.....	Nov. 4, 1897..	+300 00
Jones, William D	Brocton Point, Burrard Inlet.....	Aug. 20, 1890..	300 00
Johnson, Capt. George....	Fisgard.....	July 30, 1901..	500 00
Kootenay Electric Light Co.	Kaslo	Dec. 1, 1897..	240 00
Moore, Hugh	Dock Island	May 15, 1903..	*20 00
McColl, S. W	Garry Point	July 24, 1898..	*10 00
McColl, S. W	Mouth Fraser River Lights	March 1, 1903 ..	*25 00
McElroy, O.	Pilot Bay.....	May 2, 1905..	360 00
McNeill, D. H	Fiddle Reef	Mar. 21, 1905..	400 00
McMillan, J. F.....	North Arm Fraser River	" 29, 1905..	240 00
Nicholson, A. P. ..	Egg Island .....	.... .. 1905..	600 00
O'Brien, Michael	Fraser River	Oct. 1, 1904..	900 00
Patterson, Thomas	Cape Beale	March 2, 1895..	1,200 00
Reuter, F.....	Ivory Island.....	May 2, 1905..	500 00
Rudge, C.....	Birnie Island	" .. 1905..	240 00
Sparks, T	Shoal Point and Middle Rock, Victoria Harbour	Jan. 29, 1903..	180 00
Sparks,	Brotchy Ledge.....		120 00
Whitaker, H.	Sechelt	Oct. 19, 1904..	240 00

† Allowance, \$60 per annum for mail service.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA.

APPENDIX No. 21.

REWARDS FOR SAVING LIFE.

LIST of persons to whom rewards have been granted by the Government of Canada for gallant and humane services rendered in life-saving from shipwrecked vessels.

Names and Designations of Persons.	Nature of services rendered.	Date of services rendered.	Description of reward.
The late Mrs. Abigail Becker, who died March 21, 1905.	For the great heroism displayed in rescuing seven persons from the wreck of the steamer <i>Conductor</i> , at Long Point, Lake Erie.	Nov. 24, 1854.	\$300 contribution towards the erection of a monument in Oakwood Cemetery, Simcoe, Ont.
Captain C. F. Doughty, master, Joseph King, David Bobbins, Wm. Bransfield, seamen; of the American schooner <i>Fish Hawk</i> , of Boston, Mass.	Gallant services in the rescue of the master and crew of the schooner <i>Swanhilda</i> , of Annapolis, N.S., wrecked, at sea.	Oct. 26, 1903.	A gold watch to master, and a silver medal to each of the seamen.
Captain Parkman Hodgdon, master; Robert May and Wm. Olsen; of the American fishing schooner <i>Jennie B. Hodgdon</i> .	Gallant and humane services in the rescue of the crew of the schooner <i>Ayr</i> , of St. John, N.B., which vessel was waterlogged off Cape Cod, Mass., U.S.A.	Jan. 5, 1904.	A gold watch to master, and a silver watch each to the two others.
Captain Thomas Jones, master; Walter Ford, 2nd officer; W. Oliver, boatswain; T. LeReid, lamp trimmer; David R. Davis and A. Christensen, seamen; of the British steamship <i>Provan</i> now the <i>Black Prince</i> , Newcastle, England.	Services rendered in rescuing the shipwrecked crew of the schooner <i>G. A. Smith</i> , of Richibucto, N.B., which vessel was blown out to sea off Table Island, N.S., and was in a sinking condition when the rescue effected.	Jan. 6, 1904.	A binocular glass to master, a gold medal to second officer; a silver watch to boatswain; a silver medal each to the lamp trimmer and the two seamen.
Captain D. Richardson, master; J. S. Ledson, 2nd officer; Geo. Holmes, J. Hoslter, Edward Connor, William Mitchell and Joseph Craig, seamen; of the British ss. <i>Quernmore</i> , of Liverpool, England.	Humane and gallant services in the rescue of the captain and crew of the shipwrecked Canadian schooner <i>Josie</i> , of Weymouth, N.S., in the North Atlantic.	Feb. 18, 1904.	A binocular glass to master; a silver watch to second officer, and £2 to each of the five seamen.
Roderick McLeod, keeper of the light on South West Point, St. Paul's Island, N.S., and his son Abraham McLeod.	Gallant services in assistance to rescue the survivors of British steamer <i>Turret Bay</i> , of Newcastle, England, foundered on Paddy Rock, St. Paul's Island.	May 20, 1904.	A silver watch to each.
Captain L. O. Coleman, master of the American schooner <i>Wm. D. Morse</i> , of Taunton, Mass.	Humane services rendered by master and the crew of his vessel in rescuing from drowning the seaman John Martin Farks, of the ship <i>Creadmoor</i> , of St. John, N. B., burned at sea, the seaman having been found floating on a small hatch, nearly exhausted, off Shinnecock Long Island.	July 20, 1904.	A letter of thanks by F. Gourdeau, Deputy Minister of Marine and Fisheries.

SESSIONAL PAPER No. 21

REWARDS FOR SAVING LIFE—*Concluded.*

Names and Designation of Persons.	Nature of services rendered.	Data of services rendered.	Description of reward.
Captain George Karl Habil, master; Eugen Knorr, 1st officer; Edward Misch, 3rd officer; Arnold Gentz, boatswain; Paul Vorbusch, carpenter, Adolf Woeckel, Albert Richter, and Gotthilf Harns, seamen; of the German steamship <i>Nubia</i> , of Hamburg, Germany.	Humane and gallant services in the rescue of the shipwrecked crew of the schooner <i>Julian H. Archer</i> , of Shelburne, N.S., abandoned at sea.	Dec. 25, 1904.	A silver goblet to the master; a gold watch to first officer; a silver watch to third officer; \$15 to both the boatswain and carpenter; \$10 to each of the seamen.
Frank Young, John Hawkins, John McGregor, Joseph Kent, Wm. Kent, Samuel D. Kent, Stanley Williams, Archd. Kent and Albert Slaughenwaite, residents of Hawkins Cove and Pleasant Point, N.S.	Humane services rendered to the shipwrecked crew and passengers (38 in all) of the Furness-Whity steamer <i>Demara</i> , which vessel foundered near Shag Ledge Harbour Light, off Jeddore, N.S.	Feb. 8, 1905.	\$8 to the four first men, and \$5 each to the others. \$57 in all.

APPENDIX No. 22.

REPORTS ON INSPECTION OF LIVE STOCK SHIPMENTS.

RECORD of Live Stock Shipped from Port of Montreal during Month of May, 1905.

MAY.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number Men.
	1903.								
1	May 12	Man. Trader.....	Manchester ..	.....	370	.....	.....	.....	15
2	" 13	Corinthian.....	Glasgow	*1,016	398	.....	.....	.....	20
3	" 13	Kástalia.....	" .....	.....	406	.....	.....	.....	16
4	" 13	Hungarian.....	London.....	.....	424	.....	.....	.....	17
5	" 13	Hurona. ....	" .....	.....	550	.....	.....	.....	22
6	" 14	Tritonia.....	Liverpool	*803	430	16	.....	.....	22
7	" 14	Virginian.....	London.....	.....	476	.....	.....	.....	19
8	" 15	Montreal.	"	*2,067	440	1	.....	.....	27
9	" 15	Lake Champlain..	Liv'pol Bristol	.....	284	2	.....	.....	11
10	" 15	Monmouth.	Liverpool ...	+168	573	.....	.....	.....	23
11	" 16	Fremona.....	London.. ...	.....	300	.....	.....	.....	12
12	" 18	Marina.....	Glasgow ...	.....	437	.....	.....	.....	14
13	" 19	Bueuosayrian....	Liverpool ....	.....	613	.....	.....	.....	25
14	" 20	Ontarian.....	London.....	.....	421	.....	.....	.....	17
15	" 20	Man. Shipper....	Manchester....	.....	262	.....	.....	.....	11
16	" 21	Cervona.....	London. ...	.....	553	.....	.....	.....	22
17	" 21	Montcalm....	Bristol Liv'pol	+	770	.....	.....	.....	31
18	" 21	Bellona.....	London.....	99	136	.....	.....	.....	6
19	" 21	Montrose. ....	" .....	.....	548	.....	.....	.....	22
20	" 24	Wyandotte..	South Africa..	.....	59	2	.....	.....	3
21	" 24	Sicilian.	Glasgow .....	.....	404	.....	.....	.....	13
22	" 25	Escalona.....	Newcastle ....	.....	159	.....	.....	.....	6
23	" 25	Lake Erie	Liverpool ....	.....	170	.....	.....	.....	7
24	" 25	Athenia.....	" .....	.....	651	.....	.....	.....	23
25	" 25	Montezuma.....	London.. ...	.....	671	.....	.....	.....	28
26	" 27	Iona.....	" .....	.....	547	.....	.....	.....	22
27	" 27	Manxman	Bristol .....	.....	300	.....	.....	.....	10
28	" 28	Milwaukee	Liverpool ....	.....	638	.....	.....	.....	26
29	" 31	Orcadian .....	" .....	.....	498	.....	.....	.....	20
		Total for month. ....	.....	4,153	12,488	39	3,628,900	1,142,129	510
25	Same date	1904 .....	.....	585	13,835	65	.....	.....	.....
34	"	1903.....	.....	2,290	22,778	92	.....	.....	.....
29	"	1902.....	.....	536	10,090	158	.....	.....	.....
36	"	1901.....	.....	8,454	11,332	292	.....	.....	.....
31	"	1900.....	.....	2,314	11,426	727	.....	.....	.....

*United States. †Bristol 300, Liverpool 273. ‡Liverpool 470, Bristol 300. |2,763 U. S. cattle.

POPE & DELORME,
Inspectors.

MONTREAL, July 1, 1905.

SESSIONAL PAPER No. 21

RECORD of Live Stock Shipped from Port of Montreal—Annual Report.

No. Ships.	Date.	Sheep.	Cattle.	Horses.
150	July 1, 1904, to Nov. 30, 1904.....	43,574	81,623	183
59	May 1, 1905, to June 30, 1905.....	5,848	26,930	96
209	Total for the year ending June 30.....	49,422	108,553	279
Total for the year 1903-04.....		57,741	133,594	361
" 1902-03.....		44,330	101,508	456
" 1901-02.....		46,350	71,663	1,089

HECTOR DELORME,
Inspector.

MONTREAL, July 1, 1905.

JUNE.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Num- ber Men.
	1905.						Lbs.	Bush.	
30	June 1	Englishman.	Liverpool . . .	697	417	.....	.....	.....	20
31	" 1	Lakonia	Glasgow.....		706	.....	.....	.....	28
32	" 3	Devona	London.....		550	.....	.....	.....	22
33	" 4	Monteagle.....	Bristol.....		300	.....	.....	.....	12
34	" 4	Lake Michigan ...	London.....		591	.....	.....	.....	24
35	" 7	Mongolian.....	Glasgow . . .		385	14	.....	.....	16
36	" 8	Salacia.....	Liverpool . . .		543	.....	.....	.....	22
37	" 9	Mount Royal.	"		825	.....	.....	.....	34
38	" 10	Dominion.....	"			2	.....	.....	1
39	" 10	Kildona.	London.. . . .		301	.....	.....	.....	12
40	" 10	Sardinian	Havre, France		250	.....	.....	.....	10
41	" 11	Turcoman	Liv'po'l-Brist'l	* 552	† 581	.....	.....	.....	23
42	" 12	Tampican	London.....		492	.....	.....	.....	20
43	" 13	Mount Temple.....	"	48	683	.....	.....	.....	28
44	" 14	Ionian.....	Liverpool . . .		322	.....	.....	.....	13
45	" 15	Lake Champlain..	"		172	.....	.....	.....	7
46	" 15	Kastalia.....	Glasgow.....		661	23	.....	.....	28
47	" 17	Huron	London.		528	.....	.....	.....	21
48	" 17	Montfort.....	Liv'po'l-Brist'l		† 722	.....	.....	.....	29
49	" 18	Hungarian.....	London.....		578	.....	.....	.....	23
50	" 20	Manchester Trader	Manchester... .	300	247	.....	.....	.....	11
51	" 21	Corinthian.....	Glasgow.....		696	.....	.....	.....	28
52	" 22	Tritonia	Liverpool . . .		932	.....	.....	.....	36
53	" 24	Sarmatian	Havre, France		249	.....	.....	.....	10
54	" 24	Fremona	London.....		467	.....	.....	.....	19
55	" 25	Jacona	"		246	.....	.....	.....	10
56	" 26	Montreal.....	"	98	651	2	.....	.....	27
57	" 28	Pretorian	Liverpool . . .		361	16	.....	.....	16
58	" 29	Lake Erie	"		172	.....	.....	.....	7
59	" 29	Marina.....	Glasgow.....		814	.....	.....	.....	29
Total for month				1,695	14,442	57	4,005,800	1,221,678	586
Previously reported.....				4,153	** 12,488	39	3,628,900	1,142,129	510
Total to date.....				5,848	†† 26,930	96	7,634,700	2,363,807	1,096
55	Same date 1904.....			4,501	30,988	132			
72	" 1903.			6,777	44,595	144			
59	" 1902.....			8,277	20,243	237			
67	" 1901.....			16,465	22,395	486			
67	" 1900.....			7,131	25,377	1,399			

* Liverpool. † Bristol 274, Liverpool 307. ‡ Bristol 284, Liverpool 438. § 3,479 U.S. cattle.
** 2,763 U.S. cattle. †† 6,242 U.S. cattle.

HECTOR DELORME,
Inspector.

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—*Continued.*

JULY.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	No. of Men.
	1905.						Lbs.	Bush.	
60	July 1	Cervona.	London.		527				21
61	" 1	Ontarian.	"		608				24
62	" 1	Montauk.	South Africa..			48			4
63	" 1	Montcalm.	Liv'pol-Bristol	*260	†758	3			33
64	" 1	Montrose.	London.		751				30
65	" 2	Man. shipper.	Manchester.		265				11
66	" 5	Sicilian.	Glasgow.		704				28
67	" 6	Athenia.	Liverpool.		1,101	‡15			39
68	" 8	Monmouth.	London.		594				24
69	" 8	Iona.	"		520				21
70	" 8	Manxman.	Liverpool.		520				16
71	" 9	Virginian.	London.	198	594				25
72	" 13	Mongolian.	Liverpool.		394				16
73	" 13	Lakonia.	Glasgow.		813				32
74	" 15	Hibernian.	London.		582				23
75	" 15	Monteagle.	Liv'pol-Bristol		§690				28
76	" 15	Devona.	London.		522				21
77	" 15	Man. importer.	Manchester.	104	329				11
78	" 15	Milwaukee.	Liverpool.		851				34
79	" 16	Escalona.	Newcastle.		158				6
80	" 17	Montezuma.	London.	263	954				40
81	" 20	Salacia.	Liverpool.		687				28
82	" 20	Lake Champlain.	"		172				7
83	" 20	Ionian.	Glasgow.		491				20
84	" 22	Lake Michigan.	London.	600	650				29
85	" 22	Hurona.	"		525				21
86	" 22	Sardenian.	Havre, France		128				5
87	" 25	Englishman.	Liv'pol-Bristol	924	¶726				30
88	" 27	Corinthian.	"		691	1			29
89	" 27	Bellona.	London.		514				21
90	" 27	Kastalia.	Glasgow.		686				27
91	" 28	Mount Royal.	London.		941				38
92	" 29	Man. trader.	Manchester.	183	380				16
93	" 29	Hungarian.	London.		577				23
94	" 29	Montfort.	Liv'pol-Bristol	‡271	¶621	5			26
95	" 29	Fremona.	London.		467				19
96	" 30	Mount Temple.	"	279	1,022				42
		d Total for the month.		3,082	21,513	72	5,979,885	1,792,588	868
		e Previously reported.		5,848	26,930	96	7,634,700	2,363,807	1,096
		f Total to date.		8,928	48,443	168	13,614,585	4,156,395	1,964
87	Same date 1904.			11,198	48,683	151			
112	" .. 1903.			21,088	70,498	189			
90	" .. 1902.			16,723	30,532	313			
98	" .. 1901.			25,781	32,742	718			
103	" .. 1900.			13,259	39,812	1,651			

* Liverpool. † Bristol, 255; Liverpool, 503. ‡ Glasgow. § Bristol, 264; Liverpool, 426. || Liverpool. a Bristol, 162; Liverpool, 564. b Liverpool. c Bristol, 183; Liverpool, 438. d 2,616 U.S. cattle. e 6,242 U.S. cattle. f 8,858 cattle.

HECTOR DELORME,
Inspector.

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

AUGUST.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	No. of Men.
97	Aug. 2	Alcides.....	Liverpool		599				24
98	" 3	Lake Erie			174				7
99	" 3	Pretorian.....	Glasgow		385				15
100	" 3	Tritonia.....	Liverpool		916	12			38
101	" 5	Sarmatian.....	Havre, France		120				5
102	" 5	Montreal.....	London.....	387	734				31
103	" 5	Cervona.....	"		538				21
104	" 6	Turcoman.....	Liv'pol, Bristol	79	* 633				26
105	" 8	Man. City.....	Manchester....	280	585				21
106	" 10	Buenos Ayrian....	Liverpool.....		615	14			26
107	" 10	Marina.....	Glasgow		842				30
108	" 12	Man. Shipper.....	Manchester....	251	314				14
109	" 12	Ontarian.....	London.....		551				22
110	" 12	Kildona.....	"		301				12
111	" 12	Montrose.....	"	635	684				30
112	" 12	Jacona.....	New Castle....		250				10
113	" 13	Montcalm.....	Liv'pol, Bristol	162	† 766				31
114	" 17	Sicilian.....	Glasgow		709				26
115	" 17	Athenia.....	Liverpool		1,108				41
116	" 18	Milwaukee.....	"	360	811				34
117	" 19	Pomeranian.....	Havre, France		130				5
118	" 19	Manxman	Liv'pol, Bristol	87	‡ 510				21
119	" 19	Iona.....	Tondon.....		520				21
120	" 19	Monmouth.....	"		590				24
121	" 20	Oriana.....	South Africa..	161	92	2			4
122	" 22	Tampican.....	London.....		665				26
123	" 24	Lake Champlain..	Liverpool		172				7
124	" 24	Lakonia.....	Glasgow		813	1			33
125	" 26	Monteagle.....	Liv'pol, Bristol	162	§ 672				28
126	" 26	Hibernian.....	London.....		551				22
127	" 26	Devona.....	"		522				21
128	" 26	Man. Importer....	Manchester....	342	476				21
129	" 29	Montezuma	London.....	685	905				40
130	" 31	Corinthian.....	Glasgow		697				28
131	" 31	Salacia.....	Liverpool		685				27
Total for the month				3,591	19,635	29	5,553,230	1,521,190	792
Previously report'd				8,930	48,443	168	13,614,585	4,156,395	1,964
Total to date..				12,521	68,078	197	19,167,815	5,677,585	2,756
118	Same date	1904		14,846	67,782	178			
151	"	1903		28,609	94,151	223			
123	"	1902		21,256	43,340	354			
131	"	1901		31,387	45,239	848			
147	"	1901		16,395	56,498	2,242			

* Liverpool 433, Bristol 200. † Liverpool, 565, Bristol 201. ‡ Liverpool 311, Bristol 199.
§ Liverpool 472, Bristol 200.

HECTOR DELORME,
Inspector.

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—*Continued.*

SEPTEMBER.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle	Horses.	Hay for Feed.	Grain for Feed.	No. of Men.
	1905.						Lbs.	Bush.	
132	Sept. 1	Mount Royal.....	Liverpool		832				33
133	" 2	Hurona.....	London ...		526				21
134	" 2	Sardinian.....	Havre, France ..		150				6
135	" 2	Englishman	Liv'pol Bristol	1,100	728				29
136	" 3	Lake Michigan ...	London.....		610				25
137	" 7	Kastalia.....	Glasgow		670	12			27
138	" 7	Pretorian	Liverpool		333				13
139	" 7	Lake Erie.....	"		172				7
140	" 7	Man. Trader..	Manchester...		331				13
141	" 9	Montfort	Liv'pol Bristol		722				29
142	" 9	Hungarian.....	London.....	445	376				17
143	" 9	Fremona	"		467				19
144	" 11	Mount Temple....	"	574	857				37
145	" 14	Buenos Ayrean ...	Glasgow.....		641				27
146	" 14	Tritonia.....	Liverpool		929				37
147	" 16	Sarmatian.....	Havre, France ..		150				6
148	" 16	Man. City.....	Manchester...	172	373				11
149	" 16	Turcoman	Liv'pol Bristol	540	582				21
150	" 16	Cervona	London		528				21
151	" 17	Montreal.....	"	811	571				27
152	" 21	Sicilian	Liverpool		540				22
153	" 21	Marina.....	Glasgow		826	1			30
154	" 23	Milwaukee	Liverpool		750				30
155	" 23	Kildona.....	London.		293				12
156	" 23	Ontarian	"		510				21
157	" 23	Montcalm	Liv'pol Bristol		785				32
158	" 24	Montrose.....	London	450	704				30
159	" 25	Canada Cape	South Africa..	209	2	151			10
160	" 26	Man. Shipper. ...	Manchester...	170	356				15
161	" 28	Mongolian	Glasgow.....		269				11
162	" 28	Lake Champlain..	Liverpool		172				7
163	" 28	Athenia.....	"		1,105				39
164	" 30	Pomeranian.....	Havre, France ..		150				6
165	" 30	Manxman	Liv'pol Bristol		520				21
166	" 30	Monmouth	London	462	544				24
167	" 30	Iona.....	"		520				21
Total for the month				4,933	18,594	164	5,847,220	1,217,955	757
Previously repor'd.				12,521	68,078	197	19,167,815	5,677,585	2,756
Total to date.				17,454	86,672	361	25,015,035	6,895,540	3,513
151	Same date	1904		24,837	85,253	223			
226	"	1903		48,418	134,662	341			
181	"	1902		38,561	64,808	458			
190	"	1901		41,415	67,704	1,168			
217	"	1900		29,411	87,976	2,710			

HECTOR DELORME,
Inspector.

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.
OCTOBER.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number Men.
	1905.						Lbs.	Bush.	
168	Oct. 3	Kingstonian	London		342				19
169	" 5	Lakonia	Glasgow		623				25
170	" 5	Corinthian	Liverpool		542				22
171	" 7	Hibernian	London		355				14
172	" 7	Mount Royal	Liverpool		830	2			33
173	" 7	Devona	London		522				21
174	" 7	Man. Importer	Manchester	171	329				13
175	" 7	Monteagle	Liverpool		677				27
176	" 12	Montezuma	London	203	964				39
177	" 12	Lake Erie	Liverpool		172				7
178	" 12	Pretorian	Glasgow		337				13
179	" 12	Salacia	Liverpool		602				24
180	" 13	Saidenian	Havre, France		150				6
181	" 13	Man. Trader	Manchester	120	358				15
182	" 14	Englishman	Liverpool	1,103	727				24
183	" 14	Hurona	London		527				29
184	" 15	Lake Michigan	"		607				21
185	" 17	Alcides	Liverpool		603				24
186	" 19	Kastalia	Glasgow		305	14			21
187	" 20	Man. City	Manchester	60	642				20
188	" 20	Tritonia	Liverpool		930				37
189	" 21	Hungarian	London		508				20
190	" 21	Fremona	"		467				19
191	" 21	Tampican	"		665				26
192	" 22	Montfort	Liverpool		718	1			28
193	" 25	Mt. Temple	London	270	898	1			37
194	" 26	Marina	Liverpool		822				29
195	" 26	Sicilian	Glasgow		542				22
196	" 26	Sarmatian	Havre, France		200				8
197	" 26	Cervona	London		527				21
198	" 31	Turcoman	Liverpool	525	583				22
199	" 31	Montreal	London		659				26
200	" 31	Milwaukee	Liverpool	72	737				39
*Total for the month				2,524	18,470	18	5,984,940	759,890	751
†Previously reported				17,454	86,672	361	25,015,035	6,895,540	3,513
‡Total to date				19,978	105,142	379	30,999,975	7,655,430	4,264
179	Same date	1904		36,027	99,542	262			
226	"	1903		48,480	134,665	341			
181	"	1902		38,561	64,808	458			
190	"	1901		41,415	67,704	1,160			
217	"	1900		29,411	81,976	2,710			

* 2,043 U.S. Cattle. † 13,071 U.S. Cattle. ‡ 15,114 U.S. Cattle.

HECTOR DELORME & JAMES O'GRADY,
Inspectors.

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

OCTOBER.

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number Men.
	1905.						Lbs.	Bush.	
201	Nov. 2	Athenia	Glasgow		799	1			28
202	" 2	Lake Champlain..	Liverpool ...		174				7
203	" 4	Ontarian	London.....		563				24
204	" 4	Kildona	"		306				12
205	" 4	Melville.....	South Africa..			99			5
206	" 4	Montcalm	Liverpool	270	753				32
207	" 5	Europe.....	London.....		655				27
208	" 9	Montrose.....	"	61	748				30
209	" 10	Lakonia	Liverpool		605	† 14			25
210	" 10	Corinthian.. ..	Glasgow.....		522				21
211	" 10	Concordia	Liverpool		510				21
212	" 11	Iona.....	London.		548				22
213	" 11	Pomeranian	Havre, France		150				6
214	" 12	Monmouth	London.	184	572				24
215	" 12	Manxman	Bristol		274				9
216	" 15	Man. Importer....	Manchester ..	50	376				13
217	" 16	Pretorian.....	Liverpool		315	† 15			14
218	" 16	Salacia	Glasgow.....		546				23
219	" 16	Lake Erie	Liverpool		272				11
220	" 18	Devona.....	London.		540	6			22
221	" 18	Hibernian	"		519				21
222	" 19	Mount Royal.....	Liverpool		825	8			32
223	" 20	Man. Trader.. ..	Manchester....		380				15
224	" 22	Monteagle.....	Liverpool	493	632				28
225	" 22	Wyandotte....	South Africa..			104			5
226	" 23	Numidian	Glasgow.....		254				10
227	" 24	Hurona.....	London.....		527				21
228	" 24	Indrani.....	Liverpool		300				12
229	" 25	Sardinian.....	Havre, France		150				6
230	" 25	Man. City.....	Manchester....		347				12
Total for the month.....				1,058	13,154	247	4,264,635	706,285	538
Previously reported				19,978	105,142	379	30,999,975	7,655,430	4,264
Total for season				21,036	† 118,296	626	35,264,610	8,361,715	4,802
205	Season of 1904			48,078	112,611	315			
256	" 1903			60,017	147,201	373			
214	" 1902			45,830	77,516	549			
214	" 1901			54,538	73,791	1,338			
248	" 1900			34,838	92,180	28,180			

*And mules. † Glasgow. ‡ 17,035 United States cattle.

HECTOR DELORME,
JAS. O'GRADY,
Inspectors.

5-6 EDWARD VII., A. 1906

RECORD of Live Stock shipped from Port of Halifax, N.S., during Month of
January, 1905.

No.	Date.	Steamers.	Destination.	CATTLE.			Hay for Feed	Grain for Feed	Number Men.	Remarks.
				Fat.	Total.	Lost.				
	1905.						Lbs.	Bush.		
1	Jan. 12.	Mount Temple....	London.	36	36	....	8,000	2,700	2	All U.S. cattle.
2	" 16.	Corinthian.....	Liverpool	472	472	1	104,320	37,700	15	
				508	508	1	112,320	40,400	17	

FEBRUARY.

2	Feb. 8.	Kastalia.....	Glasgow.. . . .	36	36	....	9,920	2,880	2	All U.S. cattle.
4	" 14.	Pretorian	Liverpool	51	51	....	11,475	4,100	2	" "
				87	87	...	21,395	6,980	4	

DECEMBER.

5	Dec. 13.	Sarmatian	Havre	150	150	1	37,500	12,000	6	
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FOR THE YEAR.

1	Jan. 12.	Mount Temple. . .	London.	36	36	8,000	2,700	2	All U.S. cattle.
2	" 16.	Corinthian.. . . .	Liverpool	472	472	1	104,320	37,700	15	
3	Feb. 8.	Kastalia	Glasgow.	36	36	...	9,920	2,880	2	
4	" 14.	Pretorian	Liverpool	51	51	...	11,475	4,100	2	
5	Dec. 13.	Sarmatian	Havre.....	150	150	1	37,500	12,000	6	
				745	745	2	171,215	59,380	27	

DAVID HUNTER,
Port Warden.

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of St. John, N.B.

JANUARY.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Horses		Hay for Feed.	Grain for Feed.	Number Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Shipped.	Lost.			
	1905.													
18	Jan. 1	Tritonia.....	Glasgow via Liverpool...	268	6	731	....	731	2	....	..	210,405	55,600	31
19	" 7	ManchesterIm- porter	Manchester...	248	..	411	60	471	....	....	..	141,090	41,700	16
20	" 8	Pretorian	Liverpool.....	....	..	385	....	385	2	....	..	96,310	30,080	15
21	" 9	Hestia	Glasgow via Liverpool...	541	10	523	....	523	1	13	..	164,800	44,300	25
2	" 10	Mount Temple	London.....	....	..	701	....	701	1	....	..	199,310	51,800	30
23	" 15	Lake Cham- plain	Liverpool.....	....	..	272	....	272	....	....	..	61,320	21,800	11
24	" 15	Corinthian	"	388	4	220	....	220	1	....	..	53,796	17,096	23
25	" 16	Alcidro.....	Glasgow via Liverpool...	299	..	548	....	548	4	....	..	160,450	47,600	24
26	" 18	Montcalm	Bristol via Liverpool...	....	..	501	....	501	1	....	..	133,645	44,000	21
27	" 19	Montrose.....	London.....	....	..	524	....	524	....	....	..	146,805	27,500	21
28	" 22	Concordia.....	Glasgow via Liverpool...	150	..	505	....	505	6	....	..	134,365	41,800	21
29	" 24	Manchester Trader.....	Manchester...	349	6	307	80	387	2	....	..	119,010	34,000	18
30	" 29	Sicilian.....	Liverpool.....	....	..	709	....	709	....	....	..	278,855	56,800	29
31	" 29	Lake Erie.....	" .....	....	..	277	....	277	1	....	..	65,925	22,100	11
32	" 31	Wyandotte....	Cape Town...	....	..	....	96	96	3	21	..	99,454	20,000	5
				2,243	..	6,614	236	6,850	....	34	..	2,065,540	556,896	301

FEBRUARY.

33	Feb. 4	Kastalia	Glasgow via Liverpool...	....	..	649	....	649	2	....	..	185,610	54,900	27
34	" 9	Lake Cham- plain	London.....	336	8	511	....	511	1	....	..	154,145	44,000	22
35	" 41	Manchester Merchant	Manchester...	..	..	208	60	268	....	....	..	75,140	21,500	11
36	" 11	Pretorian.....	Liverpool.....	....	..	333	....	333	2	....	..	99,590	31,700	12
37	" 12	Tritonia	Glasgow via Liverpool...	110	..	863	....	863	....	17	..	240,880	76,200	36
38	" 19	Salacia.....	Glasgow via Liverpool...	....	..	688	....	688	1	....	..	186,830	55,000	28
39	" 19	Corinthian ...	Liverpool.....	....	..	596	....	596	....	....	..	149,080	49,600	24
40	" 26	Lake Cham- plain .....	" .....	....	..	272	....	272	3	....	..	61,290	21,800	11
41	" 26	Montcalm.....	Bristol via Liverpool...	....	..	828	....	828	....	....	..	204,690	68,700	33
42	" 27	Indrain	Glasgow via Liverpool...	....	..	626	....	626	4	....	..	169,220	50,200	25
				446	8	5,574	60	5,634	..	17	..	1,526,475	473,600	229

F. J. HARDING,
Agent.

RECORD of Live Stock shipped from Port of St. John, N.B., &c.—Continued.

MARCH.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Horses		Hay for Feed.	Grain for Feed.	Number Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Shipped.	Lost.			
	1905.													
43	Mar. 3	Manchester Im- porter	Manchester...			264	....	264	...	....	...	73,920	21,100	8
44	" 5	Sicilian	Liverpool			406	..	406	....	....	...	102,095	32,600	16
45	" 5	Mount Temple.	London.....			914	....	914	133	....	...	256,200	73,200	38
46	" 5	Alcides	Glasgow via Liverpool ..			535	....	535	1	3	..	172,170	42,800	
47	" 11	Manchester Trader.....	Manchester...			170	60	230	....	....	...	64,515	18,400	9
48	" 11	Concordia.....	Glasgow via Liverpool ..			498	....	498	1	....	...	134,560	39,800	20
49	" 14	Montrose.....	London... ..			740	....	740	....	....	...	207,625	59,300	30
50	" 15	Lake Erie.....	Liverpool			302	....	302	4	....	...	67,810	24,100	12
51	" 15	Melville .. .	Cape Town...				75	75	2	112	..	158,950	17,800	9
52	" 20	Kastalia.....	Glasgow via Liverpool ..			641	35	676	2	15	..	186,165	55,500	28
53	" 28	Tritonia .. .	" ..	119	5	912	....	912	9	..	..	250,250	74,500	37
				119	5	5,382	170	5,552	152	130	..	1,674,260	459,100	229

APRIL.

54	April 1	Salacia	Glasgow via Liverpool ..			688	....	688	6	....	...	155,430	52,500	27
55	" 4	Montcalm	Bristol via Liv- erpool.....			759	....	759	....	....	...	189,925	60,700	30
56	" 7	Lake Michigan	London... ..			590	....	590	1	....	...	165,045	47,100	24
57	" 9	Lake Cham- plain .. .	Liverpool			357	....	357	....	....	...	79,760	28,300	14
58	" 9	Indrain..	Glasgow via Liverpool ..			630	...	630	....	....	...	170,910	50,500	25
59	" 15	Manchester Merchant...	Manchester...			218	50	268	1	....	...	75,115	21,400	11
60	" 15	Athenia.....	Glasgow via Liverpool ..			1,113	....	1,113	1	19	1	306,750	91,390	42
61	" 22	Lake Erie.....	Liverpool			268	....	268	1	....	...	60,395	21,500	11
62	" 22	Manchester Im- porter.	Manchester...			310	115	425	1	....	...	119,365	34,000	14
63	" 22	Alcides..	Glasgow via Liverpool ..			579	....	579	1	....	...	156,970	46,500	24
64	" 27	Mount Temple.	London	2,088	6	672	....	672	3	....	...	252,760	78,400	38
65	" 29	Concordia.....	Glasgow via Liverpool ..			507	....	507	1	....	...	137,045	40,600	20
				2,088	6	6,691	165	6,856	16	19	1	1,869,470	572,890	280

F. J. HARDING,
Agent.

LIVE STOCK SHIPPED

SESSIONAL PAPER No. 21

SHIPMENT OF LIVE STOCK.

The number of sheep, cattle and horses shipped from this port during the season of 1904 and 1905, was as follows, viz.:—

Month.	SHEEP.		CATTLE.				HORSES.		Hay.	Grain.	Men.
	Shipped	Lost.	Fat.	Stock-ers.	Total.	Lost.	Ship-ped.	Lost.			
1904.											
August.....			929	.....	929	1	.....	.....	260,620	37,000	31
September.....			598	.....	598	.....	.....	.....	180,070	.....	24
October & No- vember.....	4,156	48	2,553	.....	2,553	9	.....	.....	870,340	136,900	112
December.....	8,241	123	4,861	.....	4,861	23	13	.....	1,514,905	469,760	240
1905.											
January.....	2,243	26	6,614	236	6,850	24	34	.....	2,065,540	556,896	301
February ..	446	8	5,574	60	5,634	13	17	.....	1,526,475	473,600	229
March.....	119	5	5,382	170	5,552	152	130	.....	1,674,260	459,100	229
April.....	2,088	6	6,691	165	6,856	16	19	1	1,869,470	572,890	280
	17,293	216	33,202	631	33,833	238	213	1	9,961,680	2,706,146	1,446

F. J. HARDING.

Agent.

RECORD of Live Stock shipped from Charlottetown, P.E.I., during the Year 1905. .

Number.	Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Hay for Feed.	Grain. for Feed.	Number Men.
9	1905.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.

H. P. WELSH,
Inspector.

RECORD of Live Stock shipped from Port of Quebec during Year 1905.

Date.	Steamer.	Destination.	Sheep.	Total Cattle.	Horses.	Fees.	Hay for Feed.	Grain. for Feed.	Number Men.
1905.									
Oct. 4.	Kingstonian.....	.....	.....	269	.....	Nil.	.....	.....	.....
Nov. 12.	Manchester Shipper.	.....	.....	394	.....	Nil.	.....	.....	.....
				663					

W. SIMONS,
Port Warden.

